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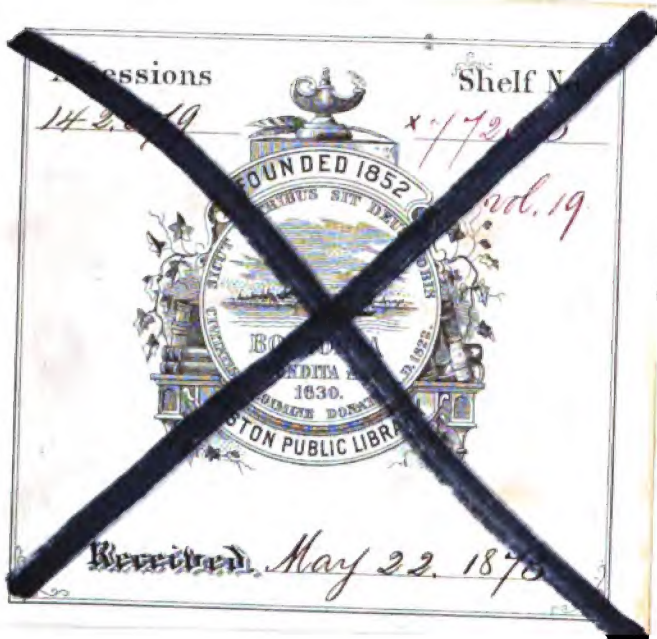
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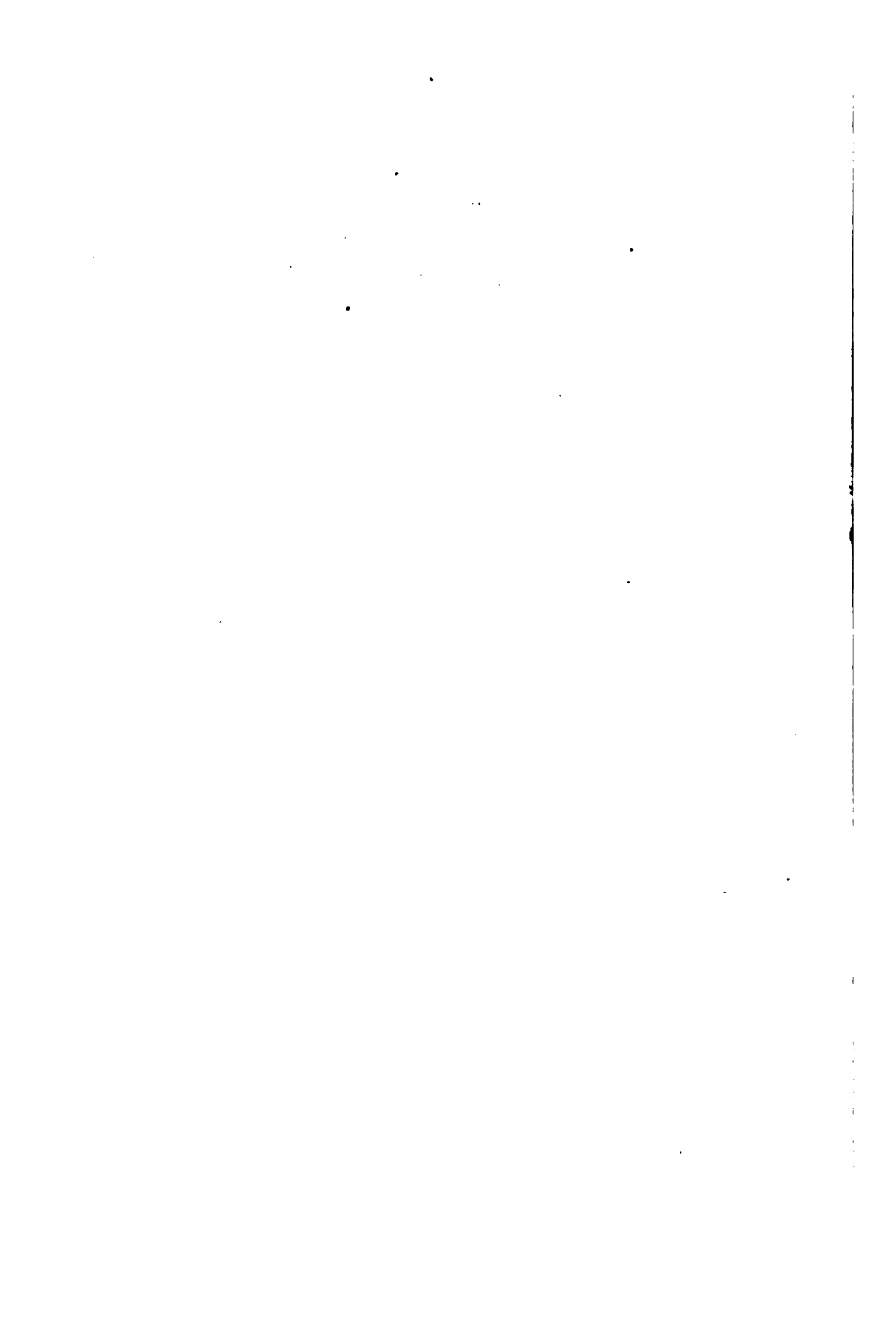
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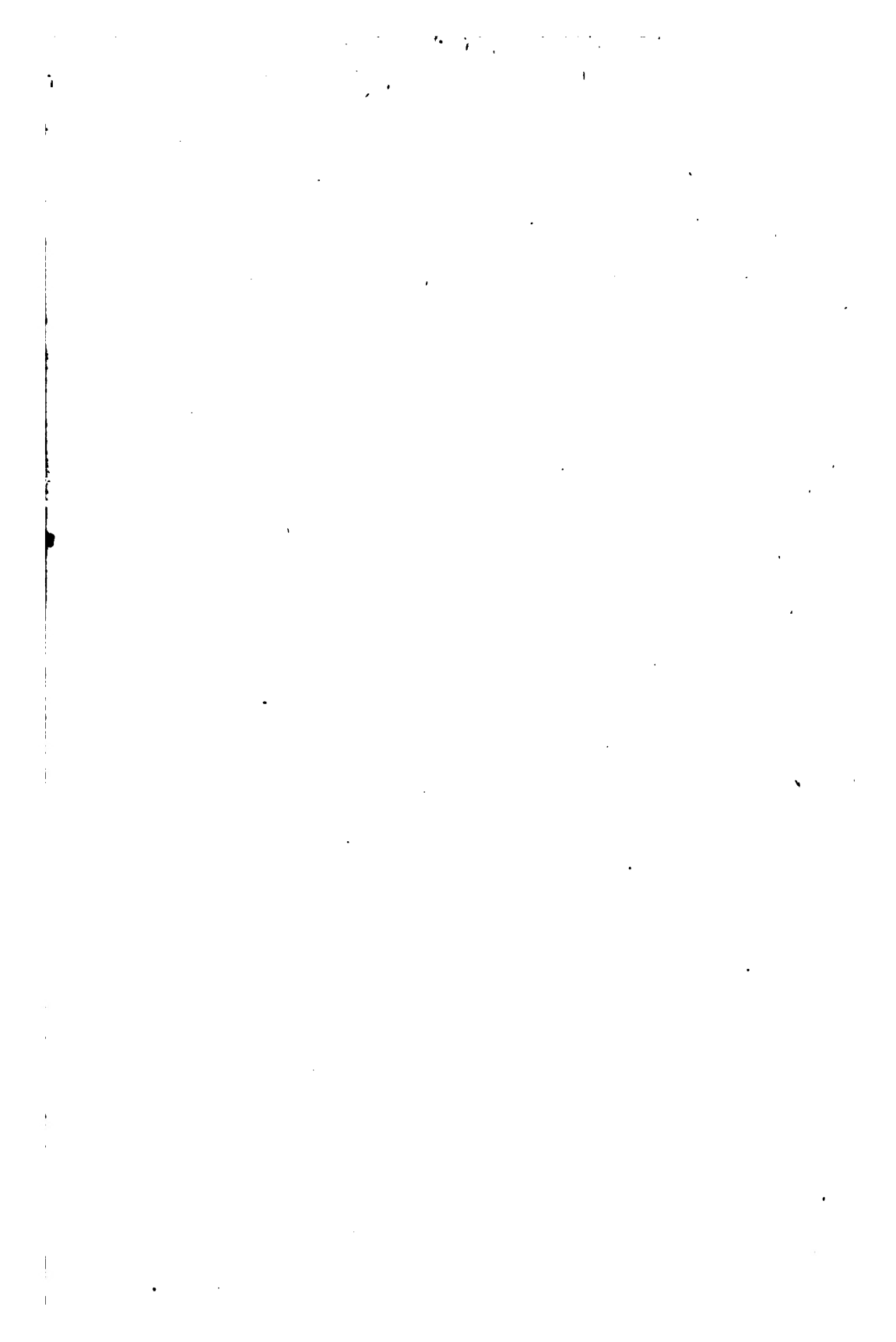
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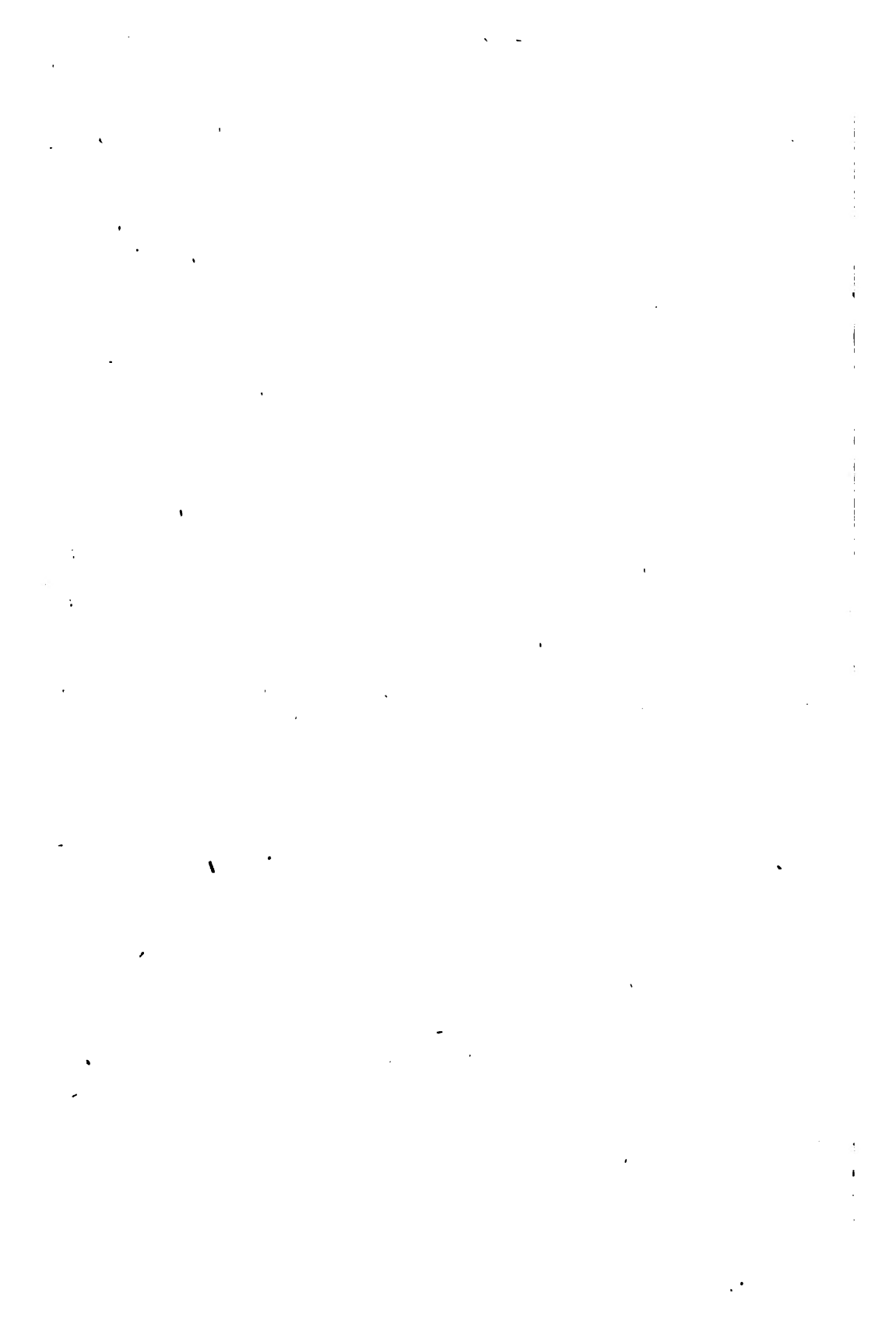


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MEDICAL AND SURGICAL
JOURNAL.

EDITED BY

M. L. LINTON, M.D.
W. M. MOPHEETERS, M.D.

VOLUME XIX.

ST. LOUIS, MO.,

GEORGE KNAPP & CO., PRINTERS AND BINDERS.

1861.

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THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL.

VOL. XIX.

JANUARY, 1861.

No. 1.

PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

Report of several cases of Diphtheria. By S. T. NEWMAN,
M.D., of St. Louis.

In the latter part of September, a family, consisting of a gentleman, his wife, and two children, visited our city, for the purpose of attending our State Fair. Soon after their arrival, the wife was attacked with sore throat, and I was requested to see her. The husband stated to me, on the way, that he felt serious misgivings about the character of the disease, as they were from Kentucky, where diphtheria had been, and was still prevailing in a very malignant form. Upon examining the throat, I discovered indications of a grave and ominous character: nearly the whole of the lateral aspect of the throat (involving both sides) was covered with dirty whitish patches, under which there was a tendency to ulceration of a superficial character; the entire periphery was inflamed: the tonsils were somewhat swollen and deglutition was painful; the neck was also slightly swollen on the outside. The general symptoms were anorexia, constipated bowels, coated tongue, quick pulse, with cool skin. Though these symptoms were grave enough, the uneasiness which I felt was caused more by the alarming accounts which I had heard of the disease in

Kentucky, than on account of the severity of the symptoms themselves. I at first applied to the diseased surface, by means of a large camel's hair pencil, a strong solution of nitrate of silver, and directed the bowels to be opened. I then put her upon the following R—Chlorate potass, 3 iii; acid hydro-chloric, 3 i; sulph. quinin., 3 i; aqua dist., 3 viii. M. Dose, a tablespoonful every two hours, or oftener. Visited the patient in the evening, symptoms unchanged. Again applied solution nitrate silver; prescription continued. On the following morning I regarded her condition as being more favorable. The pulse was however still frequent, numbering about 100. Treatment continued, with the addition of wine. From this period improvement continued, and the patient recovered.

While in attendance upon the mother, one of her children, a little girl about four years old, was attacked with the same disease. She was treated upon the same general principles, and recovered. Tinct. ferri muriat. was given to both during convalescence. There were no other cases in the family, or among the friends with whom they were stopping.

While attending upon these cases, a gentleman living in Stoddard Addition called on me, and desired me to see a negro girl about eleven years old, who was laboring under sore throat, and seemed quite unwell. I learned also that some friends from a distance had been stopping with him, and that some of the children had been affected with sore throat, from which they had not fully recovered when they arrived at his house. I visited this girl, first, Sept. 29th. Upon examining her throat, a very unfavorable condition was presented. Both sides of the throat were covered with a whitish exudation, under which there was considerable ulceration; there was also great surrounding inflammation with swelling of the tonsils, and of course difficulty in swallowing; articulation was hoarse and indistinct, and there was a very copious flow of saliva, as if the patient were laboring under mercurial ptyalism; pulse frequent and small; the bowels were constipated, tongue coated, and there was no desire for food. I could not but regard the symptoms as being of a grave character. The throat was first penciled with the nitrate of silver in solution, and then put upon the mixture above, viz., chlorate potass, quinine, and muriatic acid, with the free use of wine. The bowels were

kept soluble by means of ext. rhei; and fluid diet, consisting of milk and broths, was ordered. The next day there was but little change in the general condition of the patient, except that there was very great external swelling of the neck. The treatment was continued, with the addition of tinct. iodine externally applied. In the course of a day or two there was evident improvement both in the general and local symptoms: the pulse was improved; the external swelling had almost entirely disappeared, deglutition was effected with comparative ease, and articulation was more distinct; the patient slept and breathed comfortably; the ulceration, though remaining, showed indications of healing. I now felt satisfied that the patient would recover; but in a few days the ulceration began to deepen, with a tendency to sloughing, and involved not only the mucous membrane, but seemed to extend to the muscular tissue. Deglutition became very painful. The tinct. sesquichloride ferri was substituted in the mixture for the muriatic acid, and aqua chlorine was applied to the diseased surface by means of a probang, and a domestic gargle of a decoction of sanguinaria, which had been suggested, was allowed. To counteract symptoms of prostration, quinine, wine and carbonate ammonia were freely used. Swallowing soon became very difficult, and the effort produced the most violent pain the ears, so as to cause the sufferer to place the hands to the ears and writhe in the most distressing manner. When the stimulants were regurgitated through the nose, an effort was made to rally the patient by the use of active stimulants per rectum, but without effect; the pulse became more and more feeble, and for some time before death was no longer perceptible, and yet there was no dyspnoea, and the patient appeared conscious up to the hour of dissolution, which took place October 18th.

While in attendance upon this case, the mistress began to complain of debility, with some irritation of the throat, which upon examination was found to be congested, but no ulcers were discernible for five or six days. As the lady is an unusually nervous, timid woman, I thought that most of her disease was imaginary, or the result of nervous debility, and prescribed sugar-coated assafoetida pills, and occasionally the mixture chlorate potass, quinine, and muriatic acid; but in five or six days, notwithstanding this treatment, several superficial ulcers were seen,

covered with flocculent matter. In some places, where these little flakes were removed, the epithelium remained unbroken, in others there was abrasion of surface. The solution of nitrate silver was applied a few times; the decoction sanguinaria was freely used as a gargle, and as the lady complained of debility wine was ordered, and the mixture containing quinine (as above) was taken more frequently. The appetite was good throughout, and nourishing diet was allowed. The patient recovered.

During the pendency of this case, a negro boy, æt. about 17, (who had attended constantly upon the girl who had died,) was observed to be dull and drowsy, and complained of sore throat, which upon examination was found to be considerably inflamed and swollen, but there was no ulceration or deposit of whitish flakes; his pulse was frequent and small, though he was a boy of unusual physical vigor; the tongue was coated, bowels constipated. He was put upon the mixture potass. and quinine, and was directed to use salt and water freely as a gargle; he made use of the decoction sanguinaria also for the same purpose. No nitrate silver was used. The next day, or perhaps the third day, ulcers were discovered in the throat, with the characteristic covering; there was also great tumefaction of the tonsils, with difficult deglutition, and excessive flow of saliva, and the boy was evidently greatly worse. A solution of nitrate silver was freely used, and the former treatment persevered in. During the night the gentleman himself—who was the only remaining member of the family—feeling great uneasiness in his throat, became alarmed, and while I was at the breakfast table next morning, his brother called on me with a note expressive of great concern and requesting me to bring Dr. Pope out with me. Upon our arrival we found the gentleman decidedly more scared than hurt. There was indeed no cause for alarm, and he was simply ordered to use the mixture as before mentioned, and no further medication was required. The negro boy's throat was much ulcerated, and Dr. Pope discovered some effusion of lymph. The treatment was approved and continued. There was but little change in him for a day or two, except that the neck became swollen externally and the effort to swallow—as in the case of the negro girl—caused great pain in the ears. The outside of the neck was painted with tinct. iodine, which was directed to be applied occasionally until

slight burning was produced ; and, upon visiting him one morning, I was surprised to find the whole anterior and lateral portions of the neck blistered, and upon one side there was a large accumulation of serum, which was discharged by clipping. No inconvenience followed the blister, but the throat rapidly improved from that time ; improvement, however, was apparent before this period.

While the lady was sick she was several times visited by the wife and sister-in-law of Dr. Helms. The Doctor informs me they were both attacked with sore throat, both in a mild degree, but attended with unusual debility. In one case, for several days there was an exudation and a thin membranous deposit, which, when removed, left the mucous membrane unbroken, but again reappeared.

It will be observed that the worst cases were confined to negroes, and that in both there was great tendency toward ulceration and sloughing. Dr. Helms has suggested to me that this is more likely to be the case in the negro ; whether it be true or not, I am not prepared to say.

Remarks.—Upon a resumé of these cases, I would remark, if there were any striking peculiarities, they consisted in the very early symptoms of debility, and the excessive pain in the ears upon attempting to swallow, which last symptom was present in two cases. In the treatment there is nothing new ; it is such as is recommended in some of the European journals, except perhaps the use of iodine externally—which was suggested upon general principles—and the sanguinaria as a gargle, which was a domestic remedy. And I would here remark, Messrs. Editors, that regarding this disease as having its origin in some *materies morbi* in the blood, and the disease of the throat being only a local manifestation, I do not place much reliance in topical applications, and especially when applied with a probang, which I repudiate. Having heard that diphtheria was prevailing with great malignancy in Lexington, Ky., before having seen any of the above cases, I wrote to one of the physicians of that city inquiring if there were any peculiar characteristics of the disease in that locality, and how far it was amenable to treatment, and what plan of treatment appeared best adapted, &c. Omitting to furnish any information upon general principles, he writes with some

degree of self-glorification—though not in the most classic or Addisonian style—as follows, as to his treatment :

LEXINGTON, Sept. 29th, 1860.

Dr. S. T. Newman—Dear Sir: I received your letter a few days since, requesting my mode of treating *diphtheria*. In reply I would say, I give the muriate of ammonia in full doses, say, to a child eight years old and upwards, 10 grs. every two hours (in solution), and ten drops of the sesquichloride of iron in the intermediate hours; and these are not to be omitted for thirty-six hours; then rest four or five hours, and give them again in like manner. Continue this treatment for four or five days according to circumstances; but at first cleanse the stomach with a gentle purgative; afterwards, if the bowels should not act, once in twenty-four hours give castor oil and ol. terebinth, $\frac{3}{4}$ i of the former to $\frac{3}{4}$ i of the latter. If the diphtheric crust forms or has formed to a great extent in the throat, remove it with a fine sponge tied on a stick; the sponge should be wet with a solution of the pure nitrate of silver 40 grs. to $\frac{3}{4}$ i, or the sulphas cupri \mathcal{O} i to $\frac{3}{4}$ i of water; this should be used only once a day. The cure should be completed by the use of tonics; I have found beoberine the best. Diet nourishing.

I have treated three hundred and thirty-four cases after this method without the loss of one, and am now fully satisfied it is the proper mode of treating the disease.

Respectfully yours, &c.,

J. W. BRIGHT.

Since the receipt of the above letter, I have been shown a letter from a very intelligent merchant of that city, stating that the treatment of Dr. Bright has been *eminently* successful, and that he believes it will save ninety-nine out of a hundred, if not the whole.

ARTICLE II.

Some Points in the Pathology and Practice of Medicine.

[The following letter on certain points in the “Pathology and Practice of Medicine” was written by Dr. Chas. L. Carter, of

Johnson County, Mo., to his uncle Dr. L. Carter of Kentucky, and by the latter sent to us for publication. It is worthy of being read.—ED.]

Esteemed Uncle :—Yours of the 26th ultimo came to hand four days after date, laden as usual with much that is interesting. So the mercury question is decided and we will dispense with it. Believe me sincerely gratified to learn that you are *averse* to ptyalism as a remedial agent. I use calomel or mercury in some form in the major part of cases that come under my care; but I use precaution to avoid "*touching the gums*," as that effect evinces that the mercurial treatment has been pushed too far, and the vital tissues are giving way under its toxic influence.

The lancet is but seldom used in this country, except by a few physicians in my acquaintance, who were educated in the Kentucky schools.

You are less benighted with fogism than most physicians of your age. I am, and have, during my short professional life, been an industrious and scrupulous investigator of the workings of the organism in health and in disease; and with the light which my investigations have afforded me I can see error depicted on the pages of many of our standard works, even of recent origin.

Our profession has been called the most learned profession known to man; and so it doubtless is: I am sure it comprises the greatest body of the most learned men on earth. But I must confess it is repugnant to my feelings to take a retrospect of the deplorable doctrines and destructive practices of the darker ages of our profession.

The ruthless car of empiricism, as a besom of destruction, swept over the land, consigning the hale to valetudinarianism, and the really afflicted as oblations to the common mausoleum of former generations. But a brighter day has dawned. Investigations having been directed in the right channel (*id est*, to physiology, pathology and chemistry), nature unfolded the mystic woof, and shed a halo of light around her successful votaries.

Although much yet remains in the form of hypothesis to be verified by careful and continued research—and more perhaps to be dreamed of—yet we are encouraged to see the mist of puerile conjecture give way before the light of reason, as the fog recedes

from the light of the blazing sun. I revere those zealous-hearted and clear-headed votaries to the truths of nature's abstruse laws, whether of the present generation or of days of yore, whose researches have contributed to expand the domain of pathology. Chemistry has rendered material aid to the rational practice of medicine, particularly in those forms of disease which are to be encountered and conquered by the action of direct specific antidotes.

If, while following blind empiricism for six thousand years, chance discovered the remedial virtues of some of our most valued drugs, then we are by an easy transition of thought led to conclude that those great results of popular observation will be more than equalled each year by the positive and veritable results of rational pathology. Think for a moment of the highly utilitarian extent to which pathology has already been carried—of the irrational diagnosis and injurious treatment which are every day giving way under its auspices. Think back a few years, and see how many died of the lancet; of mercury; of antimony. How many have died for want of a sufficiency of cold water to attenuate their blood, and to wash out the *materies morbi* by the emunctories; and, again, how many have died mainly of inanition. All died of the rashness and intolerance of their misguided advisers.

Look at the limited knowledge physicians possessed of the essential character of disease. You have seen them calling symptoms disease, and treating them alike irrationally, till the patient died of the disease and the treatment—or got well in spite of both of them. You have seen the profession bleed, blister and purge their patients for endo-carditis; thus compromising the conservative powers of nature—all with extremely doubtful propriety, as dilatation of the nutrient vessels supplying a part is an essential precedent to the existence of inflammation; and as the membrane lining the heart has no *vassa vassorum*, it is not clear that such disease could exist, the valvular murmur being induced by deposits of fibrin on the valves of the heart. The vegetation found on the valves are very evidently mere deposits of fibrin from the circulating arterial blood, and not the product of inflammation. See them bleeding their patients repeatedly and copiously, to destroy the

fibrin ; but the more they bleed, the greater the proportion of fibrin left in the system. See them bleeding pregnant women for neuralgic pains, or merely because they were *incincta*. And the "neighborhood bleeder" had to bleed every big-bellied woman in his vicinity ; and the doctors *looked wise, and nodded assent*. See them treating typhoid fever and scarlatina, mainly, with mercury—collapsing their pneumonic patients with tartrate of antimony—making patients run the gauntlet of pyalism, thus adding much to the sufferings and hazard of the patient, just because their empiricism told them it was right. But I need not dwell longer upon errors which pathology renders obvious to us.

Among the positive teachings of pathology, we find the accoucher's eclampsia often depending upon retained urea ; the autumnal fevers, on retained hydro-carbons ; cancer, on living germs deposited from the blood ; rheumatism, on a redundancy of uric and lithic acid in the system ; stomatitis materna, on inflammation or ulceration in the os uteri or vagina—sometimes in the bowels. Psoas abscess is now known to be as indicative of the strumous diathesis as is phthisis pulmonalis. But I can not couch the manifold utilitarian revelations of pathology in a few pages of cap paper, or even hint at all its instructive bearings in the rational diagnosis and treatment of disease.

This science having shorn our profession of so many destructive evils, and having contributed so much to establish the practice on a rational basis, in but little more than a quarter of a century, we may *a priori* expect to be delighted and instructed at every step of our progress, as we solve the abstruse problems of this hitherto sealed book of nature. At every turn of the subject, and in every fresh illustration which it reveals to us, we derive more steadfast conviction of the total absence of chance or irregularity, even in the strangest influences of disease ; we become habitual observers of that mystery which tends to pre-eminently enlighten and to elevate the mind—observers of the immutable uniformity which prevails in the observations of nature's laws ! Who would wonder if ere long the whole secret and character of the most obstinate diatheses will be understood—and cancer, phthisis and epilepsy yield as readily to treatment, as do now remittents and urticaria ? Things not less marvellous have

already come to pass ; and so it may be that you and I will both witness this triumph in our profession.

Every intelligent physician will readily agree that a man is a physician just in proportion as he is a pathologist. It is well known that almost the entire amount of valuable information we have of the healing art is derived from the professional sciences, and not from blind empiricism. It is known, that, to an uneducated observer, the abnormal workings of a diseased organism is inexplicable and uninformative ; nor indeed can it be otherwise, as philosophers are not made by mere intuition, nor astronomers by viewing the heavens with the natural eye. Those who would get experience in medicine must first get medical science and common sense, as these are absolutely indispensable requisites to the acquisition of experience.

Yours in consanguinity and in Medicine.

ARTICLE III.

Case of Rupture of the Bladder—Death Resulting on the third day—Autopsy. By E. P. TONEY, M.D., of St. Louis, Mo.

Michael Powell, aged thirty years, gardener for Capt. Eads, in the western suburbs of this city, whilst on a somnambulist adventure, during the night of July 17th, fell from a second story window, a distance of some fifteen feet, to the ground ; whence he was conveyed (in an almost insensible condition) by Capt. Eads to comfortable quarters. Saw him on the morning of the 18th, at 8 o'clock. Lies on his back ; countenance pale and anxious ; pulse sixty, weak and small ; extremities cold ; complains of pain and soreness over the region of the bladder, which is tender to the touch. After prescribing (R—Acet. morphia, grs. ij ; carb. of ammonia, 3 i ; camph. julep, 3 iij.—M. A tablespoonful to be taken every hour, with hot hop fomentations over the painful region,) I left him, to see him at one o'clock, P. M.

At this time, I find him feeling better ; countenance much improved ; pulse eighty and full, but still complains of pain over the region of the bladder, with constant disposition to pass water, but has only passed a few drops. Passed catheter into the blad-

der without difficulty, and drew off about two ounces clear urine, which towards the last was tinged with blood. Continue treatment with the addition of ten drops tinct. of arnica to each dose of the mixture.

6 o'clock, P. M., same day, find my patient very restless, pain and tenderness becoming generally diffused over the abdomen, with considerable tympanitis; constant efforts at micturition, urine passing by a few drops at a time, and only in a standing position.

Believing from the symptoms present that extensive general peritonitis was threatened, and the pulse being about 100, strong and wiry, I placed the patient in an upright posture and opened a vein in the arm; but finding the pulse to sink under the loss of blood, I discontinued the venesection after about eight ounces were drawn, and prescribed R—Calomel, grs. xx; gum opii, grs. x. M. ft. pil. No. vi. One to be given every two hours. Continue the hop fomentations over abdomen.

At 10½ o'clock, P. M., saw the patient in company with Dr. Annan. Pulse 90; all other symptoms becoming more aggravated; efforts at micturition constant, and the pain attending it agonizing; urine passes *guttatim*, and only when the patient stands. Made an ineffectual attempt to pass a gum catheter, but succeeded with a larger sized silver instrument—a good deal of resistance about the neck of the bladder. Some two or three ounces of urine, tinged slightly with blood and mucus, passed. Directed calomel and opium pills to be given more frequently, and continue fomentations.

19th. Patient rested and slept some little, but is now again very restless—pulse 100 and weak; pain, tenderness and tympanitis increasing, with a constantly increasing desire to pass urine. Continue treatment, with the application of twenty leeches over lower portion of abdomen. From this time during the next twenty-four hours, saw the patient once or twice in company with Dr. Annan, and once with Professor Charles W. Stevens—symptoms, as above stated, constantly increasing, and poor Michael's sufferings frightfully agonizing. We mutually concluded that nothing could be done, save to soothe and palliate his dying moments by the free administration of opiates, which was done. Died on the 21st, at 2 o'clock, P. M.

At 6 o'clock, same evening, myself and Dr. Annan being present, Prof. Stevens, at my request, proceeded to make *post mortem*, by incision along the linea alba to the symphysis pubes. Upon dividing the tissues above and behind the symphysis, a contused and lacerated condition of the muscles and cellular tissue of the parts was made apparent—a quantity of fluid mixed with blood escaped, which was recognized as the contents of the bladder, &c., from its strong urinous smell. Continuing the incision into the cavity of the abdomen, we found the bowels enormously distended with gas, and perhaps a quart of serum in and about the pelvic cavity; the inflammation seemed to have been confined to the pelvis and its immediate vicinity. No evidence of urine in the abdominal cavity. Opening the bladder at its superior portion, and continuing the incision anteriorly, we found the point of rupture, a small lacerated opening, just above the neck, through which the urine escaped into the surrounding cellular tissue of the parts, and external to the peritoneal sack.

Remarks.—It is to be regretted that our *post mortem* in this case was necessarily imperfect, in consequence of the arrival of a friend of deceased, who quarrelled and violently opposed the whole proceeding. Enough was elicited, however, to account for the patient's great suffering and death.

This was evidently an obscure case, and well calculated to mislead even veterans in the profession, so far as the diagnosis was concerned. *First*—because there was no well-marked symptom of rupture of the bladder, but enough to indicate extensive and general peritoneal inflammation; the pain and tenderness was not confined to the region of the bladder, but was intensely acute over the entire abdominal parieties. And, lastly, because it rarely happens that a patient who has rupture of the urinary bladder is unceasingly annoyed with desire to pass his urine; which, notwithstanding the laceration in this instance, continued frequently to pass in small quantities.

Ages of Pregnant Women.—Dr. Granville, in some extensive statistics presented to the London Obstetrical Society, states that English women arrive at the culminating period of prolificacy at the age of thirty years, and French women at twenty-eight.

/ ARTICLE IV.

Ovarian Tumor—Death, and Post-mortem Examination.

[The following case of ovarian tumor is taken from a letter to one of the editors of this journal, from Dr. J. G. Womack of Jackson, Tenn.]

A negro girl of mine, aged 16, was safely delivered of a living child on the 10th of September last. I arrived at my plantation about ten minutes after the birth of the child, and found the placenta lying loose in the vagina, which was taken away without any hemorrhage. My attention was then called to the condition of her abdomen, which was much swollen, with no marks clearly defined except in the lower portion, which seemed hard and unresisting. She complained of no pain, and I concluded, as I could not then form any diagnosis that was satisfactory to my mind, to let her rest. On the next day, finding the same condition of things, I prescribed castor oil with a teaspoonful of turpentine, thinking it was perhaps a case of tympanitis. The medicine operated well, with no change. I then requested my friend and relative Dr. Dashiell to visit her with me, which was done. Five days after delivery, he made a careful and thorough examination, and came to the conclusion, emphatically, that there was another child, and that he felt distinct motions, though he was unable to detect the click of the foetal heart. She remained in this situation about three weeks without any apparent change, either in size or constitutional symptoms; her appetite was good, her features regular, skin natural, milk well secreted and suckling her child, bowels regular, and in fact every thing seemingly doing well, except violent periodical pains, which I was informed by the old nurse came on every night.

About ten days ago, some manifestations appeared of failing health; her skin, which was before black and greasy, now became ashy and withered; her features exhibited evidences of distress and even anguish. I attributed this however, in a great measure, to the extreme suffering which I understood she experienced every night. Some four or five days ago I became uneasy, seeing that the swelling was increasing. She took calomel and jalap, which

operated well, without any diminution of the enlargement. I got my friend Dr. Dashiell again to visit her, who, thinking perhaps that it might be a case of hydrometra, made an examination with the speculum, introduced the sound in the uterus, found every thing right there, came to the conclusion that there was an accumulation of water and tapped, drawing off about four gallons of sero-sanguineous fluid. After this amount was drawn the flow ceased almost entirely; she was put to bed and stimulated with whiskey and laudanum. The next day I found the enlargement did not extend as far up in the right and left hypochondriac region as it did previous to the tapping, but in other respects remained as before. No reaction ever came on, though stimulants both externally and internally were constantly employed, and she succumbed three days after without a struggle.

In company with my friend Dr. Murchison, a North Carolinian, and my nephew, a post mortem examination was made, which revealed, upon opening the parities of the abdomen, an enormous ovarian tumor, which, on being cut into, resembled more the appearance of the lungs, or that spongy substance, a cow's udder; the color, however, was more like the former. The tumor was attached to the broad ligament of the uterus on the right side, and the entire ovary was obliterated or absorbed in the mass. All throughout the substance you could find cysts, some of which, when cut into, would pour out a serous fluid; others would contain organized lamps resembling coagulated fibrin. The tumor, after nearly all the fluid was evacuated, weighed eighteen pounds. I have no doubt it would have weighed, when first taken out, at least twenty-five pounds. The whole of the internal walls of the abdomen, in the lower part, was thickly studded with tubercular deposits; the bowels were sphacelated and some of the small ones were covered in some places with the same kind of deposit; liver, stomach and spleen healthy; uterus and bladder likewise, with the exception of some morbid growths on the latter similar to those mentioned above.

It is strange that this girl should have gone through the entire pregnancy without any disturbance of health, and complained but little more than is usual with women with their first child. It is certainly a remarkable case, and I wish I could delineate to you more particularly.

ARTICLE V.

Foreign Correspondence.—Letter from Dr. F. COOLEY.

LONDON, Nov. 10th, 1860.

Prof. MCPHEETERS.

My dear Sir: Just before leaving Lexington, Mo., I received a polite note from you requesting me to correspond occasionally for the St. Louis Medical and Surgical Journal. I will try and comply with your request. Since my arrival in London, I have had the pleasure of witnessing much in the line of surgery. I have seen Mr. Skey, Mr. Stanley, Mr. Coote, of St. Bartholomew's Hospital, operate; also Mr. Lane, Mr. Ure, Mr. Coulson, Mr. Walton, of St. Mary's; Mr. Curling, of the London Hospital; Mr. Fergusson and a Mr. Wood of King's College Hospital; and Mr. J. Baker Brown of the London Surgical Home. I have seen Mr. J. Baker Brown operate for vesico-vaginal fistula. The operation for vesico-vaginal fistula, I think, is Mr. Brown's favorite operation: and I can bear testimony to his great surgical skill in performing this very nice and complicated operation. Heretofore this has been one of the most difficult, if not the most difficult and intractable diseases that fell to the lot of the surgeon; and even at the present day it is the case in the hands of many surgeons, both in this country and the United States; but in the hands of Mr. J. Baker Brown those cases hitherto considered almost entirely beyond remedy, make rapid recoveries. It is true, there are some failures, even under his treatment; for to effect a complete and entire cure in every instance, would be, to say the least of it, almost miraculous. I can not, however, but speak in the highest terms of his great surgical skill in this hitherto difficult operation, and far more difficult disease to cure. Under the old plan of operating, patients have undergone the operation time and again, and yet without relief; but after a patient has undergone the operation introduced by our countryman, and my particular friend, Dr. Bozeman, the cure is almost an absolute certainty. Mr. J. Baker Brown performs this operation with the greatest imaginable ease. In one operation, which I saw him perform, he concluded it in forty minutes, whereas it frequently requires two or three or even more hours to complete the operation. Mr. Brown does not, or at least, very rarely,

uses Dr. Bozeman's button, but employs a clamp, which is however on the same principle of the button, and I think preferable to the button. He values the clamps higher than the button, though it may be to more closely connect his name with the operation. He has also made improvements in the needle, which I think answers the purpose for which it was designed better than the original needle. It is easier of introduction, and the sutures can be introduced through the needle with the greatest imaginable ease and facility. Mr. Brown deserves great credit for having brought this operation to its present state of perfection. By speaking of the operation in the manner in which I have above, connecting Mr. Brown's name so closely with it, I do not, by any means wish to convey the idea that I am aiming in the least degree to detract from the merits of the operation as performed by Dr. Bozeman, for to him belongs the credit of having introduced this great improvement. It is certainly gratifying to those who are afflicted with vesico-vaginal fistula, to know that there is a remedy for them, and that they can be almost certainly cured. I find Mr. Brown ready and quite willing to communicate all he knows respecting this operation. To his patients, he employs no harsh language, but speaks mildly and very kindly; he is also very particular not to inflict unnecessary pain on his patients. I would like to amplify, and to somewhat particularize in regard to the particular manner in which Mr. Brown operates, but I forbear, because your readers, I apprehend, have had, ere this, something from him on this subject; and, if so, what I might say would be superfluous. I have witnessed several operations for the removal of stone in the bladder, but at present will only speak of the operation of lithrotrity, as performed by Mr. Skey of St. Bartholomew's Hospital. Mr. Skey performs this operation with the greatest ease. The first operation I saw him perform for crushing the stone in the bladder was in the person of a boy fifteen years of age. In this instance, he introduced the largest sized lithrotrite, which in persons of this age is very unusual. He operated without chloroform, producing little or no pain. Mr. Skey, like Mr. J. Baker Brown, is somewhat wedded to the operation of lithrotrity. He performs this operation oftener, perhaps, than any other surgeon in London. He says it is not as often resorted to as it should be. Were those cases taken,

says he, in their commencement—in *ascertaining the beginning of the formation of stone is the great difficulty*—a great majority of them might be relieved by lithotrity, thereby avoiding the necessity of using the knife. I would prefer lithotomy to that of lithotrity, especially in the hands of some of those whom I have seen operate.

The hospitals in London afford a fine field for obtaining surgical knowledge. Important surgical operations are performed at some one or more of the hospitals every day in the week, thereby giving an opportunity of witnessing operations daily.

ARTICLE VI.

PROCEEDINGS OF THE ST. LOUIS MEDICAL SOCIETY.

Reported by U. H. BILLINGSLEA, M.D., Rec. Sec'ry.

Opinions upon Dr. Todd's Pathology and Therapeutics, as promulgated in his work on "Certain Acute Diseases," &c. Obscure case of obstructed Menstruation, reported by Dr. M. M. PALLEN. Anomalous processes upon the Occipital Bones, by Dr. E. J. MARSH.

Dr. LINTON. I desire to call the attention of the Society to a work recently published by Dr. Todd, entitled "Clinical Lectures on certain Acute Diseases." I regard it as the most remarkable work that has emanated from any source for many years. His therapeutics seem to have gone ahead of the times. For some years back, Dr. L. has advocated the use of the hydro-carbons in phthisis. Has also said that the alcoholic stimulants did not favor inflammation, and would not increase fever. In some of the London hospitals they are given in acute disease. Dr. Todd's book is the embodiment of his practice. He devotes but little space to pathology and much to therapeutics. It is an old prejudice, so he says, to avoid alcoholic stimulants in inflammations and fevers. He asserts that his experience fully bears out this doctrine, and gives many cases proving their advantage.

Dr. L. does not intend to endorse these views in their full extent. Theoretical deductions led me to believe these agents not

injurious. There are cases of inflammation in which bleeding should precede the use of the hydro-carbons. Dr. L. agrees with Dr. Todd in the *modus operandi* of these latter remedies. He would not reject mercurials, as they are our most useful agents in sub-acute or chronic inflammations. We may not be able satisfactorily to explain their action, but all experience proves them useful in inflammatory diseases. Is satisfied they can cut short inflammation, and of course can not agree with Dr. Todd that they are of little avail. So often have I used them with benefit in chronic inflammations, where I had objected to them in the start, that I am forced to acknowledge their potent influence.

With regard to the necessity for stimuli and nutritious food in debility and anemia, there can be no doubt. With the few exceptions just mentioned, and the ultraism of his stimulation, I can endorse the work of Dr. Todd, and advise its perusal. The reading of the work will have an influence upon my practice, in encouraging me to use stimulants where I before thought they were contra-indicated.

People may differ in the use of terms. The terms *sthenia* and *asthenia*, respectively, mean strength and weakness. All diseases produce debility, and thus *asthenia* is one of the first symptoms. Active congestion and inflammation are *sthenic* only in a certain sense; their tendency is to produce an *asthenic* condition of the general system. But we have two classes: first, those diseases which are universally *asthenic*, as the fevers; and secondly, those in which we have local *sthenia* and general *asthenia*. Increased power of the brain and active secretion of the liver are both examples of local *sthenia*, and these may be associated with an *asthenic* condition of the general system. In those diseases in which we have local as well as general *asthenia*, we must always employ supporting treatment; but when local *sthenia* is combined with general *asthenia*, we must temporize.

Dr. M. M. Pallen. There is a fashion in medicine as in politics. Facts do not change, but men's opinions alter very much. Thirty years ago, a very remarkable book on fever made its appearance, which was pronounced by the *Med. Chir. Rev.* not only the best book on fever, but the best book of any kind. This was the work of Dr. Southwood Smith. He advanced the doctrine

that all fevers were sthenic diseases, dependent upon inflammation, and that this inflammation might be either in the head, thorax or abdomen. Hence all fevers were to be treated antiphlogistically. That book had its day and its adherents. Thirty years have elapsed and the doctrines of Southwood Smith are now old foggy notions. There is really nothing new in these doctrines of Dr. Todd; merely a revival of views that have had their day long ago.

Dr. T. assumes that all inflammations will run through a natural course, and that we must support the system while the eliminative process is gone through with. Is this a fact? Can we not cut short an inflammation? Have we nothing else to do but give eliminatives and support the general system? What is inflammation? We are told that it is some disturbance between nutrition and decay; too much supply and too little decay, or *vice versa*.

Let us put the question in another form—what does inflammation appear to be to the naked eye? First, increased flow of blood into a part; secondly, stasis of the blood in the capillaries, adhesion of the corpuscles to the sides of the vessel and to each other, and exudation of lymph. We may call this a lesion of nutrition if we choose, but the facts are as stated. If the inflammation be sufficiently severe to react upon the general circulation, we will have increased action of the heart and arteries. As a result, in plain language, we find destruction of the parts takes place. This destruction exerts such an influence that the disease is protracted in its duration, or death ensues. We further observe, that when such an inflammation can be seen, those remedies that arrest the too frequent action of the heart and arteries, will, by preventing too free flow of blood, diminish the activity of the inflammation.

Still further, it has been proved that the withdrawal of blood from the system will sometimes cut short a conjunctivitis; and if this can be done, so also can you stop a pneumonia. We can not explain why a particular part of the lung is attacked; but experience teaches us that remedies that impede the action of the heart and arteries will do good. For these reasons, I can not agree that inflammation will run a certain course; but, if possible, I arrest the disease, and at the same time prevent debility. The

very means that are used to cut short the disease do not lower the system, but rather elevate it. The abstraction of the blood relieves the system of the incubus that rests upon it, and as the blood flows the patient gets stronger. It is a practical error to suppose, that because the results of disease lead to debility, therefore the system must be supported, *ab initio*, for that debility. Who has not seen pneumonia cut short in the first stage? I have, and I think the experience of all will bear me out in this assertion. But pneumonia may run on to the stage of deposition, and then we must use those remedies for which Dr. Todd has such fondness. It is true, after deposition has taken place we have debility, and we must use supporting remedies; but are there no measures that will assist the removal of these deposits, and must we wait for nature alone to accomplish it? Dr. Hope on his death-bed stated, that if there was anything which he fully believed, it was the power of mercury to produce absorption. I allude to this, because I can substantiate the views of Dr. Hope. Day by day, while going the rounds of a hospital, have I seen and pointed out to others, the gradual decrease of the dull sounds under the influence of this remedy. Facts like these can not be gainsaid for fashion. There are, however, many inflammatory diseases that demand no depletion.

Dr. LINTON. I endorse Dr. Pallen's views pretty heartily. I can not see much difference between his views and those of Dr. Todd. The difference is more of degree than of kind. Where they do not agree, I am inclined to think Dr. P. correct. When you say a disease must run a certain course, you come pretty near the truth, but not entirely; for some can be shortened. This book of Dr. Todd's, although very good, is not the most logical I ever saw. In one place, he decries the use of depressing agents under any circumstances, and in another he advocates bleeding, or at least admits its utility. In this he would contradict himself, unless bleeding is not always a depressant, as asserted by Dr. Pallen.

In syphilis and intermittent fever, we certainly cut short disease, which if left to itself might run on to a fatal termination. I endorse entirely the opinions of Dr. Hope as to the efficacy of mercury. No fact is better established, as I have before stated, than that mercurials do cure subacute and chronic inflammations.

I have used them frequently in these cases, and, simultaneously with the tenderness of the gums, benefit ensues. This seems to be the general opinion of the profession. I also endorse Dr. Pallen's statement, that there is no change in the type of disease. The fact of our not bleeding does not depend on any such change. Blood-letting could only strengthen indirectly, not directly. It may, by diminishing the action of particular organs, increase that of others. We may call cold a stimulant; for by contracting the capillaries of the skin, it has a bracing effect upon the system. So also the sedatives may act indirectly as stimulants. We must always keep in mind the direct and indirect effect of remedies. It is important to remark a local sthenia or a local and general asthenia. I believe there may be sthenia of a particular part. In asthenic diseases the stimulants and tonics would be the remedies. In what is usually called asthenic disease, it would be necessary to deplete the local sthenia, and watch the general asthenia, as in inflammation of the lungs, which is locally sthenic and generally asthenic.

Alcohol is a stimulant and not a nutrient to any tissue—may nourish indirectly, but not directly. It is respiratory food, and nourishes by saving. When but little nourishment can be taken in, if we can introduce material for respiration, we shall accomplish much. There are no general sthenic diseases.

Dr. M. M. PALLER. In some previous remarks on this subject, I endeavored to show in how far I differed with Dr. Todd. I attempted to show that blood-letting really acted by relieving the vital powers. With his second proposition I differed, because if we accept this *in toto*, we must allow that all diseases will run a certain course; while I contend that we can cut short—can do more than support the system—can prevent lesions which would so interfere with the organism as to cause death. His third proposition is but a corollary of the second. It is clearly the object of Dr. Todd to establish the doctrine that antiphlogistics are not to be used. He belongs to the school of Hughes, Bennett, and others, who believe that a disease is mainly to be cured by the use of remedies which support the system during its continuance. There are many truths in Dr. Todd's work, and they have been recognised as such for a long time. While old physicians recognised the importance of antiphlogistic measures,

they also inculcated the necessity, under proper circumstances, of the opposite form of medication, both in inflammatory and non-inflammatory diseases. It is to the exclusiveness of his doctrines that I object, and not to the doctrines when applied in the proper place. There can be no doubt that the use of alcohol is demanded in certain forms of fever and asthenic inflammations; for I still believe in the use of the terms *sthenia* and *asthenia*. I recognise the difference between the prominent features of these two forms of disease; and as the profession have agreed upon these two terms, they should be preserved.

The asthenic form of inflammation is that to which alcohol is adapted as a remedial agent. Take, for instance, certain forms of phlebitis. This disease may commence in a very sthenic form, but so soon as pus begins to circulate, we have a condition so plainly asthenic, that he who runs may read. We have here an inflammation, but not such an one as will bear depletion. The system is depressed by the poison, and we must use alcohol as the remedial agent; and for the manner in which it acts, and the proper mode of its administration, I can refer you to Dr. Todd's excellent remarks upon the subject.

Three times in my life have I been prostrated by the effects of heat, and in each instance under the influence of alcohol the system reacted. Alcohol is the special food of the nervous system. Taken improperly it destroys the nervous system, not by active inflammation, but by interference with digestive and other processes it so injures the tone of the nervous system, that coma, paralysis, &c., will follow. When a man is dead-drunk, he is comatose. Tremors follow from its constant use. Too much alcohol taken at once may cause paralysis. In typhus or typhoid fevers, alcohol is also a necessary remedy. In phthisis it is also of service when given properly. I do not wish to be understood as objecting to the use of alcohol; for while I disagree with Dr. Todd in the treatment of sthenic inflammations, while I believe such need blood-letting and antiphlogistics generally, I agree that alcohol is proper in asthenic diseases—consumption and diseases of that character.

I took occasion one year ago, when discussing a subject somewhat similar to this, to state that the type of disease had not changed, and this I still believe. I do not believe in the phases

of inflammation, as insisted upon by Dr. Watson. Locality has much to do with making disease sthenic or otherwise. Dr. Todd has derived his experience from the crowded wards of London hospitals, and hence deprecated antiphlogistics; while we, and others, who practise amid more salubrious influences, very frequently meet with cures that require the lancet and other so-called depletions.

Dr. WHITE—I did not intend making any remarks at this time, having previously, a year ago, presented my views to the Society on the therapeutic action of alcohol, it being the type of stimulants most prominent among the hydro-carbons. The pathology of inflammation, and its treatment by stimulation and feeding, is especially interesting at the present time. The late work of Dr. Todd on “certain acute diseases,” is a characteristic work, and contains many important suggestions and points worthy of careful analysis; some of these, it appeared to me, have not been sufficiently considered, and others entirely overlooked.

One of the most important is, whether acute diseases have changed their type since the earlier writers recommended the antiphlogistic treatment, and have become asthenic in their nature, requiring supporting remedies; or, whether indeed these diseases have not always been asthenic. Dr. Todd affirms the latter. After apologising for his “venturing to dissent from current views of pathology and practice, sanctioned as they are by great names, both living and dead, for which he will yield to no one in admiration and respect,” he explicitly declares his position by asserting “amicus Plato, amicus Socrates, *magis amica veritas*.” Now, if he be correct in dissenting from the current views of pathology, in affirming that all acute disease is asthenic in its nature, then are stimulants demanded from the beginning, and it would appear indeed that this is his view (though in his clinical reports we do not find it to be his practice), from the following: “I can not too strongly impress you, that to do good with stimulants you must use them early,” &c. Even in asthenic gout he uses alcohol from the beginning.

I consider Dr. Todd at fault, therefore, both in his general and special pathology, in considering all acute diseases asthenic, and inconsistent with his therapeutics, which is for the most part faultless.

Dr. Linton, recognizing the division into sthenic and asthenic inflammations, has given us an analytic view of their distinctive nature; it occurred to me, however, that he did not make a sufficient distinction between local and general disease. It may be a question also, whether the local affection may not be a type of the general pathological condition, it being in an exalted or depressed state; that is, may disease ever, *per se*, be sthenic or asthenic locally, while the system as a whole is otherwise?

Another point: Dr. Todd has drawn his views of pathology from isolated facts, collected in his clinical observations made under peculiar circumstances, in the wards of a London hospital. These cases can not be considered a fair manifestation of acute disease at the present time, and this mode of induction may be safely questioned. The type of disease, seen in the well ventilated homes of rural districts and under the influences of a different climate, is quite the reverse.

Another very important point regarding the therapeutics of Dr. Todd, and which I think has been overlooked is, whether alcohol is a tonic or nutrient. He affirms that it is food for nerve tissue, with which it is almost identical in chemical composition, and being readily absorbed, it is at once appropriated for the repair of wasted nerve structures. Placing his argument on the premise that asthenia arises from the destruction of nerve tissue, and that alcohol is food for this tissue, he assumes his therapeutics, and concludes that it is not injurious to overstimulate with this remedy. He says, "I am convinced that it is better to overstimulate than not to give enough, for if we have overstimulated a patient, it is easy enough to pull him down again." This certainly can not be confuted, nor will it be necessary to *pull him down*, for he will come down quickly enough in consequence of the overstimulation; thus, instead of gaining increased nutrition, we have increased disintegration, and loss of nervous power, with not unfrequently fatal depression of the vital actions.

Dr. Miller of Edinburgh, and many other learned authorities, both in Europe and in this country, claim that alcohol is nothing more than a medicine—a stimulant or poison; while an equal array of authorities affirm that it is respiratory food, and thus an indirect tonic. I am not prepared to controvert Dr. Todd's position;

for, it is universally admitted, that alcoholic stimulants exert especial influence over the functions of the nervous system ; but that it is food for the repair of those structures is not quite so clear ; nor can it be denied that the judicious use of these agents in cases of nervous depression and exhaustion, does restore tone to the system.

Some chemico-physiologists contend, in opposition to the views of Leibig, Prout, and others, that alcohol undergoes no change in the blood, but when taken in too large quantities it is eliminated through the emunctories. Mialhe affirms, that it never is excreted in the urine. Vierordt found less, while Dr. Prout found more, carbonic acid eliminated through the lungs during the ingestion of alcohol, than was normal. In a late report of Lallemand, Duroy, and Perrin, made before the Academy of Science at Paris, after laborious researches, the following conclusions were affirmed, viz :

1. Alcohol is never an aliment ; it acts only as a modifier of the nervous system.
2. It is never decomposed or transformed in the system.
3. It principally concentrates itself in the brain and liver.

With this contrariety of opinion, the question becomes at once important and interesting. I believe that alcohol does produce a deposition of fat, sometimes even amounting to disease, as in fatty degeneration. Venosity is a disease that may be caused by the judicious use of alcohol, the fatty oils and nutritious diet, antagonistic to tuberculosis, if Rokitansky and universal experience be correct. Here is one disease less perilous to life substituted for one that is more dangerous. Now the question arises, is this the action of alcohol in the system ? We answer, the therapeutic action of alcohol is two-fold, physiological and pathological : the one merely stimulating normal vital action, the other altering the vital changes to abnormal action. The former cures by exciting the function of organs, and the latter by altering the function. We should therefore exercise discretion in the administration of this, as in the use of any other poison, such as opium, belladonna or aconite. Because the vital changes do not go on, is no reason that alcohol may not be contra-indicated. This would be irrational empiricism. While escaping the dangerous extreme

of depletion, we should be careful not to lose the channel of truth, by plunging into the no less perilous extreme of overstimulation.

The less injury we do in curing disease, the more true we are to our patients; and it would be better, if by bleeding we cause sedation with less actual depression, than to first overstimulate the heart and arteries, thus causing destruction of the peripheral branches and an uncertain amount of exhaustion, though we should obtain the same result. The destruction of tissue may be more difficult to repair, than to restore to the blood the loss of a large amount of the nutritive material, abstracted by bleeding. Better far to lose some nutritive matter, than to force into a part an excessive amount of the very elements necessary to be carried off.

Alcohol, when administered in narcotic doses, may become antiphlogistic and cure even sthenic inflammations; but this mode of treatment would be far more hazardous than bleeding, antimony or veratrum.

Dr. WATKINS—I had no intention of making a speech upon this subject, but finding in the *North Amer. Med. Chi. Review* a statement that the views which I have held and promulgated for some time past, foreshadowed those of Drs. Todd, Bennett, and others, I deem it necessary to state that such is not a legitimate conclusion.

The first proposition of Dr. Todd is, "that the notion so long prevalent in the schools, that acute disease can be prevented or cured by means which depress and reduce vital and nervous power, is altogether fallacious." I believe, sir, that we can cure by depressing and reducing means. Suppose, for example, you cut your finger; by bringing the edges of the wound together, union may take place without inflammation. The means that would be used, would be such as depress vital power; for in preventing the introduction of air, and in keeping the temperature reduced by cold water, you are using depressing means, as disintegration is the vital motor.

Inflammation results from disintegration being proportionally above nutrition. The causes of inflammation are either an increase of the destructive changes or diminished nutrition, and the indications in its treatment are, either to diminish the disintegration or to increase the nutrition, or both. In the work of Dr.

Todd only one means or method is taken into consideration, that is, to increase nutrition. All the antiphlogistics, so called, tend to diminish destructive changes, and hence meet one indication.

The question comes up, if this be true, how are we to use our remedies? Shall we rely on one or both? In the first example we cited, we rely upon the first method, preventing destructive changes—by excluding the air and keeping the temperature reduced. Almost all idiopathic inflammations, or those which depend upon increased destruction, will bear active antiphlogistic treatment in the beginning. I believe blood-letting is very beneficial in some cases, because the destructive changes are due to the introduction of oxygen, and the red corpuscles of the blood carry this to the tissues. If we bleed, we diminish the red corpuscles but not the plasticity of the blood. You bleed for the same reason that you draw the wound together, and apply cold water, that is, to lower the destructive changes. I do not believe that tartar emetic or mercury lower the plasticity directly, but secondarily, by diminishing disintegration. Our object should be to re-establish the balance between destruction and nutrition. By lowering destructive changes we diminish vital power, and hence we must use agents having this effect judiciously and not as routine practice. Tartar emetic and calomel in so far as they lower the plasticity in inflammation do harm, as the object is to restore the balance.

Alcohol is a stimulant; all stimulation is due to destructive change. Experiments of Dr. White prove this. We must sustain vital power, says Dr. Todd; but in a changed organism, the stimulants are wasted—they produce direct debility. We are much more debilitated after the use of alcohol than before it, if the organism is so deranged that the power thus developed does not become vital power, because every motion and action of the body is produced by destructive changes. A patient has been very ill; you advise exercise in the open air, because as you increase the waste the power is developed and appropriated for the purposes of nutrition; but if the power is not thus appropriated from deranged organization, exercise is most injurious. Alcohol should be given for the same purpose.

It is a difficult thing to draw the line between the necessity for a stimulating or an opposite mode of treatment. The power

developed by stimulants in the early stage of inflammation can not be appropriated, and here we must rely more upon agents which diminish disintegration. Unless the power developed by stimulants be used so as to cause vital motion, what is the use of it? I believe we would better enable the patient to run through typhoid fever, by preventing the power from being developed. If all power in the body involves waste, certainly it must be injurious to increase the power, if the organism is so changed that the power can not become *vital power*. These are the views which I think are foreshadowed by my essays.

Dr. E. J. MARSH exhibited to the Society two Indian skulls, which presented a peculiar process on the occipital bone. They were obtained from Fort Berthold on the Missouri river, at the village of the Arickaree tribe of Indians—one was procured by Dr. Kennard in the spring of 1858, and the other by Dr. Marsh in 1859. The latter is now in the possession of the Academy of Science of this city. The first is that of an adult, and presents the following peculiarity: On the base of the skull, directly external to the condyle of the occipital bone, there is a large projecting process of an oval shape with its long diameter antero-posteriorly. The process on the left side is about three-fourths of an inch in length, and one half inch in its greatest diameter at the base. The surface is rough, the extremity rather pointed, but on its anterior half there is a distinct articular facet. On the right side this process is somewhat smaller, and its extremity has been broken off.

The second skull is that of a child about eleven years of age. This presents also processes of the same nature and situation, although proportionally somewhat smaller than those of the first skull. Both present articular facets on the extremities.

Dr. Marsh had examined other Indian skulls from the same locality, in which no such process was found. From the situation and nature of these processes they appear intended to articulate with the transverse processes of the atlas.

Dr. M. M. Pallen reported the following interesting case:

On last Monday night, I was called by Dr. Pope to see with him a lady from the country, who had suffered for two months the

most intolerable anguish from what was supposed to be a retroversion of the womb. She had not menstruated for two months previous to the occurrence of the retroversion, and had also given other signs of pregnancy. Her bearing down pains, as she described them, must have been somewhat similar to the tenesmus of dysentery. Upon introducing my finger into the rectum, a tumor could be distinctly felt. A vaginal examination revealed a remarkable state of things. The vagina measured but two inches in length anteriorly, while posteriorly, the shortening was remarkable, it measuring but one inch. There was no difficulty in micturition. No neck of the womb could be felt. If there was a retroversion of the uterus, and the neck could not be felt, it must be high up, and consequently the anterior vaginal wall would have been lengthened, and there would also have been difficulty in urination from the pressure of the neck of the womb against the bladder. Three fourths of an inch above the os vagina, there was an opening, but no neck of the womb. Now, was this the os uteri or merely a fold of the vagina? It was so near the orifice that it could easily be seen by separating the labia, and it had the appearance of the os uteri, but no neck could be discerned. If the tumor felt against the rectum was not the uterus, where was it? The bladder and rectum were *in situ*, and the tumor ought to be the uterus, and low down as the opening was, it ought to be the os uteri.

I was puzzled. Dr. Pope as well as myself had attempted to reduce it and failed. I endeavored to introduce the uterine sound into the opening, but it would not pass to any depth. The patient was left for the night, two grains of morphine having been administered as usual, to give rest. We met again next morning, and came to the conclusion, that there was either a pregnant uterus retroverted, or that the uterus was closed at the os internum, and contained menstrual fluid; and it was determined to pass an instrument through the opening, which would either rupture the membranes and produce abortion, or discharge the menstrual fluid, as the case might be. I again attempted to pass the sound, but could not succeed, although, with the finger in the rectum, I somewhat elevated the tumor. Detecting some fluctuation in the tumor, I then used a curved trocar, plunging it through the os uteri

in the proper direction, and a quart or more of menstrual fluid gushed out, to the complete relief of the patient.

Now, why was the vagina so much shortened? I could not get an accurate history of the previous confinement; but I believe that laceration and inflammation took place at that time with sloughing of the vagina, and the uterus having descended united with the vagina below, thus producing shortening and perhaps the occlusion. Several years since, I saw a case of occlusion of the womb in a young lady from the country. The abdomen was much enlarged, and her aunt, who accompanied her, insisted that she had menstruated regularly. I punctured the uterus through the vagina with Simpson's exploring needle, and relieved her. The vagina in this case was of the usual length. I advised her physician to gradually dilate the os, but it was not attended to, and the fluid reaccumulated; again it was let out, but only to reappear; the third time it was punctured, peritonitis followed and resulted in death.

ARTICLE VII.

Report of the Committee on Physiology and Pathology.

The Committee, to whom was referred the subjects of Physiology and Pathology, have found the time insufficient for the preparation of a full report; and in view of the fact that the Society could not anticipate, from this your first Committee, during the brief period since its appointment, a complete *resumé* of the progress of these sciences, it has attempted no more than a partial, and, it is feared, very imperfect review of such points as its limited opportunities have furnished. The report promises, therefore, a consideration of such items only as were at hand, and not a result of laborious research. It is a matter of regret, also, to your Committee, that many facts and opinions developed in the fruitful labors of physiologists and pathologists during the last few years—some reformatory and others confirmative of previously received doctrines, and full of interest to scientific medicine—have of necessity been entirely ignored; they hope, however, that the various subjects that will be presented may be found worthy of your favorable notice and critical review.

Soon after its appointment, the Committee met for the purpose of arranging and dividing the work, when the following division of the subjects was agreed upon ; assigning to each member the distinct topic in the order that his name stands upon the Committee, viz : first, The Physiology of the Nervous and Muscular Systems, by F. W. WHITE, M.D., Chairman ; second, The Physiology of the Circulatory and Glandular Systems, by E. J. MARSH, M.D. ; and third, General Pathology, by G. H. E. BAUMGARTEN, M.D. In pursuance of this plan, it has been the object of each member of the Committee to present, not so much his own views, as a concise and just exposition of such facts, theories, and opinions, as have recently appeared, or which, in consequence of their connection with the subject, claim attention.

I. Nervous and Muscular Systems.

Human Physiology, or the study of man and his relations, has an essential position, and the physiology of the nervous systems the preëminent place, in the noble science of organic life ; and yet up to the present very little is determinate regarding its intimate structures and special functions. One fact, however, is quite clear, namely, that it exerts a controlling influence over the formation and development of the material—its decay and repair—and the unceasing roll of its life-actions ; while its mysterious and apparently essential relation to the manifestations of the immaterial, point authoritatively to the importance of its study. The development of the nervous system in all animals is in direct ratio with the position they occupy in the scale of intelligence, showing conclusively that the correlations of mind and matter are essential to be understood in attempting to know what is “Life.” Metaphysicians in looking upon the developing magnitude of the physical sciences, and their rapid progress toward positivism, with unwarranted fears have regarded them as a tendency of the age to the dethronement of moral truth ; whereas they are gathering about it as an impregnable bulwark. A knowledge, therefore, of mental physiology assists in explaining the true relations of the finite to the Infinite Intelligence, and should be among the earliest lessons of the moralist in seeking the noblest of truths—Moral Truth. Truth corroborates truth ; and the material often becomes the instructor of the immaterial. In this age, Common

Sense asserts the supremacy; and will decide as the arbiter between this pseudo-metaphysical assumption and the authority of legitimate truth; nor will she disregard the wonderful connection existing between the mental and the merely physical.

The study of Mental Physiology is full of wisdom and beauty, and its growing importance has called forth, during the last two years, the publication of two very characteristic works; one from Dr. Noble in 1858, and the other from Dr. Laycock during the present year. We have opportunity to notice only a few points in the latter work, which is entitled "Brain and Mind; or Correlations of Consciousness and Organism." He considers the study of physiology essential to the establishment of mental philosophy; and the supposed antagonism of the sciences to Revelation, not real; that the relation of soul to body, mind to matter, and their reciprocal activities, are not understood, because not studied in the light of physiology. He would study the connection between man and his organism, or between "*himself* and *his*"—himself remaining unchanged, while his is continually being altered. In his correlations, the laws of thought are compared with the minute anatomy of structure, and the laws of its functions, volition and thought being exercised through the medium of the nervous system.

The greater part of the work was designed and has been performed, without doubt, for the sustentation of a theory peculiar to himself. He accounts for all the phenomena of mental and organic being by an immaterial, inherent, energy—an adapting power, or force, ever operative in the vital processes, whose laws can only be understood by ascertaining those of the living organism. This "energy," "mind," or "soul," has no conscious existence in itself, but is developed through the functions of the nervous system, and is the unconscious receptacle of impressions from the Divine Mind, which are manifested in the phenomena of organic life. He considers it an error to endeavor to establish the doctrines of consciousness, by inquiring how mind *knows* and *feels*; the question should be, how mind *exists*. He contends that consciousness of unity and personality, depends on the correlation of life and mind.

The term correlation, as here applied to consciousness and organism, may be understood to indicate that under certain circum-

stances, they are capable of giving rise to each other; that each may transform the other, not however possessing any essential attribute in common; this is not "reciprocal relation" simply, it is more. He affirms the existence of an essential and inseparable connection between the phenomena of mind and the functions of the brain; that the innate mental faculties of man, and the instinct of inferior animals, do not differ essentially in character, but only in the degree of their development, and that they are not separable by any definite line. Comparative psychology stands, therefore, in the same important relation to mental philosophy, that comparative anatomy holds to mental physiology.

In our present state of being the activities of mind and body are so closely conjoined, particularly that of intellection and the development of brain, that it is impossible to know the one without the other. The question, however, as to the existence of consciousness and the thinking principle in the intermediate state, independently of the body, is one not of physiological enquiry, but of metaphysics alone; while the study of the living and concrete man belongs to the practical psychologist. He does not undervalue the importance of logic and metaphysics, but thinks the great error of metaphysicians to consist in their abstract reasonings upon both the operations and products of mental effort, without considering in the concrete how far they are affected by the living organism.

This is Dr. Laycock's great work, and, though written in the most difficult and obscure style, possesses much merit, and must command the thoughtful attention of all scientific physiologists and metaphysicians. The subject is treated under the following classification, viz: I. Preliminary Dissertation on Method. II. Metaphysics. III. Mental Dynamics. IV. Principles of Scientific Psychology. V. Principles of Mental Physiology. VI. Principles of Mental Organology. To this may be added his claim to priority over Dr. Carpenter in the "discovery of the law of unconscious cerebral action" or "reflex action of the brain."

In discussing mental dynamics, he treats—1st. The correlations of cause, or first principles; 2d. Biology—correlations of vital forces—correlations of vital and physical forces—correlations of

vital, physical, and mental forces. In the article on "Mental Physiology," his "Historical Review of Researches into the Law of Cerebral Differentiation with Unity of Function," and "The Physiognomonic Method of Research," are replete of interest. His article on "Mental Organology" is an able and elaborate treatise on the anatomy and physiology of the nervous system. He thoroughly discusses the "doctrine of organization in relation to the various states of consciousness, which constitute in their totality the mental life of man." Cranioscopy and phrenology, in his opinion, disregard the "law of unity in multiplicity and multiplicity in unity, which is the fundamental law of both mental and vital processes." Of this truly great work our space would allow only this very meagre and imperfect review.

Structure and Histology of Nerve Centres.—Prof. Jacobowitsch of Russia, who has been engaged for several years laboriously in the microscopic study of the nervous centres, presented to the Academy of Sciences, Paris, in May last, a paper on the peripheral terminations of nerves. He arrived at the following conclusions :

1. Every nerve, of whatever nature, originates in a nerve-cell in the central organs of the nervous system, and terminates in the periphery or in the interior of an organ, either in a nerve-cell or by forming a capillary network, in which the anatomical differences disappear by the transition of one axis cylinder into another.

2. The nervous system forms, like the vascular, a whole, and penetrates, like this, the organism in all its parts, and divides into the last elements—without, however, being lost in any indistinct manner.

3. The nerve elements, *i. e.*, the nerve cells and axis cylinder, are continually being formed anew and further developed in the central organs, as well as in the periphery.

4. The destination of nerve cells is various ; they either execute specific functions, as in the nerves of special sense, or they serve for the preservation of the organs in which they are located, as in the glands and mucous membrane. The physical function of the organs is dependent on the co-operation of the nerve cells, in the central parts of the nervous system.

5. Although the anatomical difference disappears, in the capil-

lary network of the nerve terminations, by the coalescence of the axis cylinders with one another, yet the physiological difference remains just as is the case in the vascular capillary network."

In a former paper, this distinguished young physiologist presented the following conclusions as the basis of his researches :

"1. Three entirely distinct functions of the nervous system, mobility, sensibility, and organic action, are not only exercised by three different orders of nerves ; but, moreover, these orders of nerves take their origin in different central anatomical elements.

"2. The *medulla spinalis*, whence arise the general nerves, contains equally and naturally the three orders of elements ; but the brain, the organ of the intellect, contains but the elements of sensibility, and the nerves of the special senses are also made of the same element, with which is united in small proportion only the ganglionic element.

"3. The element of sensibility is in different dimensions in man and animals, being larger in the former and smaller in the latter ; so that for even an equal cerebral mass, the human brain is much richer in sensible elements than is that of animals."

Prof. Lenhossek, in 1857, presented some very interesting views to the Academy of Sciences at Paris. The following is a brief synopsis, viz : The nervous centres are composed of white, gray, and an intermediate substance, which is gelatinous. The white is composed of primary fibres which terminate in radiations in the various nervous centres. The gray is composed of three classes of nerve cells : 1. Nerve cells with all their elements diffused ; 2. Nerve cells with all their elements united into groups, and these are found both in the motor and sensitive nerves ; 3. Rounded nerve cells with all their elements discolored with a dark-brown pigment. These form the ferruginous substance. The intermediate or gelatinous substance is formed by the commingling of the gray substance and the fasciculi of the white substance. In the spinal marrow, the gray substance constitutes four columns, two anterior motor and two posterior sensitive. In the medulla oblongata, these four columns change their relative positions, the anterior becoming internal, and the posterior becoming external. The motor columns extend to the third ventricle and are lost in the infundibulum, the sensitive passing into the *thalami optici* and *corpora striata*. At the point where the four col-

umns commingle the commissure ceases and the prolongation of the gray substance forms the median *cloison* of *Vicq d'Azyr*; this continues through the *pons varolii*.

The primary fibres of all nerves originate in the gray substance, sometimes by prolongations of the nerve cells, but generally they appear in groups without any distinctive origin; they never assist in the development of the white substance, nor does the white assist in the formation of the roots of the spinal nerves. The motor roots of the spinal and cerebral nerves originate in the motor columns, and the sensitive roots of the spinal and cerebral nerves originate in the sensitive columns. The roots of the mixed cerebral nerves, as the two superior roots of the spinal or accessory nerves of Willis, and the par vagum, originate in both columns. The primary roots of the nervous plexus of the pia mater and all the roots of the spinal, except the two superior, arise in the periphery of the gray substance. The corpora olivaria are formed of an external gray substance and an internal white substance, the former being in convolutions.

The Function of the Cerebellum.—M. Flourens, and others, teach that the function of this organ is for the co-ordination of muscular motion, and not for intellection, nor for the exercise of muscular power; while M. Foville affirms that it is for cognizing sensations conducted to it from the muscles, and thus enables the mind to modify and direct their action; while, again, Dr. Andrews, the learned Professor of Surgery in the Lind University, contends "that while it may be true that the mind, through the cerebellum, co-ordinates motions, it does not do so because it possesses a specific function of co-ordination, but simply because its action is directly excito-motor." Dr. Rolleston considers the cerebellar physiology of Schroeder Van der Kolk, regarding the function of the corpora olivaria as established, and reduces the two prevailing theories, as to sensibility and co-ordination of muscular movements, to one proposition: "complicated bilateral movements postulate two sets of nerve structures, viz: 1st, the spinal ganglia, in addition to the ganglionic masses, in connection with roots of nerves on either side; 2d, compound fibres bringing these special ganglia into intimate connection—first, with the ganglia of the nerve roots; secondly, with each other." Any impression made in the anterior or posterior groups of mus-

cles, either volitional or reflex, is conveyed to the medulla oblongata, and thus produces bilateral action of any particular muscle or set of muscles co-ordinated by that nerve centre. He says, "this great nerve centre stands in the same relation to the motor nerve nuclei of the trunk and posterior limbs, as the corpora olivaria do to the muscles of the tongue, face, and throat;" and that the pons varolii stands in a direct relation as to size with the power of the animal in maintaining the erect posture and in an inverse ratio to the breadth of the basis of sustentation; as, for instance, in the Kangaroo, "we find superadded to the single median processus vermiformis of the bird, also lateral lobes with still superadded lateral appendages."

Similar views were held previously by Dr. Andrews, in a report on the "Function of the Cerebellum," made before the American Medical Association, and appear in the Transactions for 1858. He has gathered from the field of comparative anatomy many interesting facts, and has presented eighteen dissections of the brain of different animals from the reptile up to man. He says, "each of the groups of muscles, the posterior and the anterior, receives separate innervation, and there is an enlargement of the spinal cord in the region where the nerves to each organ run off." He concludes, "that the lateral lobes of the cerebellum, which are properly the posterior, preside over the muscles of the posterior group, and that the median lobes exert their influence in like manner over the anterior group." To illustrate and support this theory he makes the following propositions, viz: "1. In the warm-blooded animals, the median lobe or vermiform process of the cerebellum varies in size directly as the bulk or power of the anterior group of muscles; 2. The lateral lobes vary in like manner as the power of the posterior group of muscles, subject, however, to certain variations." He demonstrates by his dissections that the lateral lobes have a marked correspondence with the size of the brain and the position of the animal in the scale of intelligence.

"1. If the animal have large complex hemispheres of the brain and at the same time very powerful posterior muscles, then both these conditions unite in demanding large lateral lobes of the cerebellum, and these organs in fact attain under such circumstances their maximum development."

“ 2. If the hemispheres of the brain be of a low grade, but the posterior extremities still powerful, then the deficiency in one condition is balanced by the excess in the other, and the animal will have lateral lobes bearing a moderate ratio of size with the median.

“ 3. If the animal have cerebral hemispheres of decidedly inferior development, and at the same time posterior extremities which are feebler than the anterior, then both conditions will coincide to reduce the lateral lobes to a bulk less than the median.”

He thinks Dr. Carpenter incorrect in affirming, that the cerebellum is developed in a direct ratio with the number and variety of co-ordinated movements; and asserts, that it is in direct ratio with the quantity and power of the fibres without respect to the complexity or simplicity of their combinations.

The Function of the Spinal or Accessory Nerve of Willis.—M. Claude Bernard has attempted to render more clear and determinate the origin, distribution and function, of this nerve. According to Willis, it is a voluntary motor nerve, and ascending into the cranium anastomoses with the pneumogastric, from which it borrows fibres, and thus becomes, also, an involuntary motor nerve—in fact being an auxiliary of the pneumogastric. In this he differs from Scarpa, and other modern physiologists, who hold the reverse of this, *i. e.*, that the pneumogastric borrows fibres from the spinal.

Bell and Magendie established experimentally, that the anterior roots of the spinal marrow gave origin to the motor nerves and the posterior roots the sensitive nerves. Goeres advanced the doctrine that the pneumogastric and spinal sprung from different roots, corresponding to the two roots of a rachidian pair. Bischoff supported this view; and Bernard confutes it by first assuming that the origin of the spinal is from a large extent of the spinal marrow, while the rachidian arise from a very small portion, and that instead of its insertion into the fissure between the anterior and lateral fascicles, it emerges from the spinal marrow near the posterior fascicle. He also contends that the filaments of the spinal which anastomose with the pneumogastric, (and they do not exceed three or four,) arise from the medulla oblongata, and all the remaining ones which compose the external branch are entirely distinct from the anastomosis: he therefore concludes,

that the motor and sensitive element in the spinal nerve is not accounted for by its anatomical relation to the pneumogastric, nor, indeed, by its physiological connection; for he has established the truth of the proposition that the *recurrent sensibility* of the spinal is not influenced in the least by a division of the pneumogastric.

It presides especially over phonation, and regulates the action of the larynx and thorax during the exercise of this; the pneumogastric, on the other hand, controls the movements of the œsophagus, stomach, heart, and lungs, independently of its connection with the spinal. Bernard's mode of experimenting was to pluck the nerves and roots away as a whole, asserting that the function can not be discovered by their section on account of the dangerous hemorrhage attending it. In this way he successfully destroyed the spinals, and found loss of voice, permanent dilatation of the glottis, and inability to contract the vocal cords; and, upon section of the pneumogastric, he found aphonia, contraction of the glottis, and inability to dilate the vocal cords. The contraction and dilatation are not however due to the action of two orders of muscles corresponding to the two orders of nerves; but are accomplished through one motor system possessing two functions, regulated by two orders of nerves distinct in their influence and origin. A diversity of function may occur in the same muscle or group of muscles from a diversity of nervous influence; thus at the instant that the larynx is employed in phonation by the internal branch, the thorax discontinues its function of respiration by the external branch of the spinal, and thus assists in the vocal effort. While it is therefore anatomically impossible to distinguish perfectly the filaments of these two orders of nerves, it is not difficult to discover and prove that phonation is controlled by filaments of the spinal, and respiration, circulation and digestion, by filaments of the pneumogastric.

Epilepsy.—The work of Drs. Kussmaul and Tenner, entitled “*Researches on the Origin and Conditions of Epileptiform Convulsions*,” contains many worthy considerations on this subject, of which we can notice here only those relating to the nervous system. He thinks the cause of most epileptiform convulsions are a sudden lesion of nutrition in the brain, and are not produced by variations of pressure within the encephalon; that those

convulsions which are the result of hemorrhage do not proceed from the medulla spinalis ; (Brown Sequard thinks this proposition incorrect, assuming that the medulla spinalis plays a small part in their production ;) that these convulsions are not due to the brain, but to causes found behind the thalami optico-rum ; that loss of blood from the brain anterior to the crura cerebri cause insensibility, unconsciousness, and paralysis ; and when occurring with convulsions there are alterations posterior to the optic thalami ; (Brown Sequard found previously, that in epileptic vertigo the cerebral lobes were anæmic, and that it was enough that the cerebral lobes were deprived of blood while the base of the encephalon received too much ;) that those resulting from hemorrhage are not due to moral or reflex influences ; that incomplete epileptic attacks proceed from alterations of the brain, while complete attacks are produced by alterations of the entire encephalon, and that the spinal cord acts only as the conductor of the excitation to the muscles ; that certain kinds of epileptic convulsions proceed only from the muscular walls of the vessels of the brain, while in others the predisposing cause pervades the entire encephalon—at first, occurring in only one part, but afterward the remainder is impaired, whence the attack proceeds ; (Brown Sequard attempted to determine the conditions of this predisposition, *i. e.*, that it did not exist in the cerebral lobes, but in parts of the isthmus of the encephalon and part of the cervical cord ;) that the medulla oblongata being the origin of the constrictor nerves of the glottis, and the vasomotory nerves, is most frequently the point of origin in eclampsia and epilepsy.

Epileptiform convulsions have for a long time been compared to a discharge of electricity from an overcharged battery. Dr. Pidduck in a late paper re-asserts this, and argues that the intermittance of the paroxysm depends on the accumulation of nervous force, during a definite period, in the brain and spinal cord, which explodes on the voluntary muscles, thus giving rise to the fit. Dr. Schroeder Van der Kolk also affirms this position on the premise that the ganglionic cells may be considered as batteries. This can not be the case, for these cells are joined on one side to filaments of nerves derived from the brain, and on the other with sensitive nerves. Schroeder Van der Kolk thinks that the experiments of Brown Sequard sustain this position, and that it is by

reflex irritation on the brain and spinal cord, that the medulla oblongata being the point where reflex influences pass to either side, that an excitation here produces, indeed, all the class of general spasms. He examined the medulla oblongata of fourteen epileptic patients, under the microscope, and discovered—*first*, hardening or softening; *second*, an alteration in the blood-vessels. M. Foville says, “violent muscular action and a want of consciousness are the two distinctive marks of epilepsy. He also assumes, that the source of these phenomena is reflex excitability of the spinal marrow, and of the medulla oblongata in particular; that these centres possess a peculiar capability of determining muscular movements independently of volition as the sequence of excitations transmitted by them.” “In a word, each sensitive part of the nervous system, whatever may be each special action, is sufficient to determine in the spinal marrow the modifications in consequence of which the motor fibres react;” and that reflex action in the spinal marrow may result from peripheric irritation and cause muscular action, which is at first local, and finally becomes general in consequence of re-action of the medulla oblongata. Dr. Todd also occupies this ground, when he says, “The phenomena of an epileptic fit depend on a disturbed state of the nervous force in certain parts of the brain—a morbid excited polarity,” &c.

Dr. C. B. Radcliff objects to this position, and contends that facts will not justify the assumption that epilepsy is ever due to over-action of the brain, for the opposite condition obtains, as indicated in the state of the circulation and respiration, and from *post-mortem* appearances. He does not think the essential cause of these spasms due to an exalted sensibility and activity of the ganglionic cells of the medulla oblongata; that the argument in favor of this view is incorrect, viz: that spasm indicates over-action, nor that injuries of the spinal cord point to over-action of this centre, as assumed by Brown Sequard, for epilepsy is not thus immediately produced, but occurs only in three to five weeks, when exhaustion has come on; that these convulsions are never due to the *presence* of stimulus in the venous blood, but to the *want* of arterial blood in the vessels. He agrees with Dr. Schroeder Van der Kolk, that the seat of these characteristic spasms is to be found in the condition of the *medulla oblongata*,

and that this position is supported by the bilateral character of the fits, by the *post-mortem* appearances, and by the fact that they commence in the muscles springing from the medulla oblongata. We regret that space will not allow a more lengthy review of these learned papers.

Nervous Influences determining the Color of Blood in Glandular Organs.—M. Claude Bernard has proven that glandular venous blood and muscular venous blood present changes of color diametrically opposite when in action or repose. In muscular function or activity the venous blood is very dark, but when a gland is in function or activity the venous blood flowing from it is of a bright, arterial, color; also, when a muscle is in repose the blood afforded by it is of a bright-red color, but when a gland is in repose the blood furnished is of a black color. Now in those glands whose secretion is intermittent the changes of color, from red to black, and from black to red, depend on the action of two orders of nerves. He explains the manner in which these nerves modify and control these chemico-physiological changes in the blood. These orders of nerves have separate origins and functions, each being antagonistic to the other. He assumes that all motor nerves act by either dilating or constricting the blood vessels, which position has been denied by Radcliff Hall, who contends that there is no such nerve force determining the dilatation of these vessels. According to Bernard, these nerves act through the influence exerted on the capillary system of blood vessels, not by any chemical change exerted upon the corpuscles of the blood as there is no anatomical continuity, but by mechanical conditions retarding or accelerating the circulation; in the former case, the blood is retained in connection with the disintegrating tissues, and thus receives the discoloring elements; while in the latter, the circulation being rapid, the blood is of a florid, arterial, hue. His experiments were performed upon the sub-maxillary gland of the dog. He found upon excitation of the nerve, determining the respective conditions, the blood was red or black. When the nervous influence causing the flow of arterial, scarlet-colored blood predominated, this phenomenon was always present; and when the antagonizing influence preponderated, the blood was of a dark-venous color. The intensity of color, in either case, is determined by the activity of the nerve in

function; for the quiescence of one nerve influence does not cause the color of the blood, but the preponderating action of the other nerve, in function. The nerves regulating these changes in the sub-maxillary gland are the tympano-lingual, and branches of the great sympathetic nerve; the former nerve causing the blood in the vein of the sub-maxillary gland to be red, and the latter causing it to be black.

If these positions of Bernard be established, the question as to the physiological action of stimulants and sedatives on the nervous system becomes very interesting. The somewhat mysterious action of stimulants in controlling passive hemorrhages and relieving congestions, is the underlying principle of Dr. Todd's therapeutics. These remedies act first upon the nerves of sensation, and afterward, if pushed too far, on the nerves of motion. This may, in part, explain the *modus operandi* of chloroform and alcohol in preventing and relieving congestions, and modifying even acute inflammations. Chloroform when inhaled almost immediately affects the nerves of sensation, and when pressed controls the heart's action, and blood vessels; thus allowing the action of the motor nerves to predominate. The result of this is to hasten (if the position of Bernard be true) the blood from the parts under the influence of the sensitive nerves, and to prevent the normal supply of blood to the part. This may also explain the fact that the administration of chloroform and alcohol, in the clinical observations of Dr. Todd did not produce congestions, nor increase inflammatory processes. Dr. B. Brown, of North Carolina, reports a case of "severe laceration and destruction of a portion of the brain," which beautifully illustrates the action of anæsthetics (he used chloroform and sulphuric ether) on the circulation of this organ; he says, "hemorrhage, which had been free previously, ceased almost entirely after the full anæsthetic impression had been produced." "When the anæsthetic influence began to subside the surface of the brain presented a florid and injected appearance; the hemorrhage increased and the force of the pulsations became much greater." This fact confirms the opinions of Dr. Todd. The same conditions result from their internal administration, only in a modified degree. We may, therefore, safely conclude, that Claude Bernard's views, regarding the action of the two orders of nerves over glandular and muscular movements,

point in the way of real progress ; also that the nervous system determines more or less the intensity of the inflammatory process.

Prof. Watters of this city, whose novel and profound views on "Life" and "Inflammation," are well known to the profession, does not deny that, through the agency of nerves, inflammation under certain circumstances is produced ; but contends that inflammatory processes may, and do most frequently, occur independently of any special nerve action. The following will indicate his views : he says, "in considering the *classes* of circumstances which may occasion the primary conditions of inflammation, we must not leave out the influence of the nervous system. Disintegration to a certain extent is regulated through nervous conditions." He argues that the constant decay or disintegration of the organism demands a continuous, commensurate, nutrition or repair, which is essential for the normal condition of all parts of the system. All the processes necessary for the maintenance of this equilibrium of waste and supply, in their totality, constitute energy, force, or power, which philosophers and physiologists have so vaguely denominated "vital," and are essentially the conditions of life, disintegration being the antecedent motor. Therefore any alteration in the relation these conditions bear to each other, capable of causing their disequilibrium, may produce inflammation, among which is a derangement in the function of nerves. His views on the subject are referred to more at length in another part of this report by my colleague, Dr. Baumgarten.

The researches of H. Snellen, "On the Influence of Nerves in Inflammation," lead him to the opinion that there is no proof of any nervous influence causing the dilatation of the blood-vessels. The following is a synopsis of his conclusions : "1. Excitation of the nerves of sensibility determines by reflex action the contraction of the blood-vessels of the neighboring parts ; 2. Contraction of the blood-vessels is followed after a little time by their dilatation ; 3. The nerves of the blood-vessels modify nutrition, by acting on the calibre of these conduits ; 4. The inflammatory process does not consist essentially in a modification of the nervous influence ; 5. The inflammation of the cornea that manifests itself after section of the trifacial nerve, is not the direct result of absence of nervous influence in the ganglion of

Gasserius." He differs from Bernard only in denying a nervous influence to cause *dilatation* of the blood-vessels.

II. Circulatory and Glandular Systems.

Action of the Heart.—Although, since the time of Harvey, and more especially since the introduction of auscultation by Laennec, there have been many observers in the field, and numerous experiments have been performed in order to investigate the action of the heart, the cause of its sounds, and the general phenomena of the circulation, differences of opinion still prevail among physiologists upon these subjects.

All observers agree as to its rythmical action, the alternate dilatation and contraction of its cavities, and in the fact that the contraction of the auricles precedes that of the ventricles in point of time, but without any distinct interval or pause between the two. With regard, however, to the motion of the heart and the changes of shape that it undergoes during contraction, descriptions differ widely; some observers describing as the systole what others describe as the diastole. Dr. Carpenter describes the action of the heart as follows: "In the *systole* of the ventricles, their surface becomes rugous; the superficial veins swell; the *cornæ columnæ* of the left ventricle are delineated; and the curved fibres of the conical termination of the left ventricle, which alone constitute the apex of the heart, become more manifest. During their contraction the form of the ventricles undergoes a very marked change, the apex of the heart being drawn up towards its base, and its whole shape becoming much more *globular*. The movement of the apex however is by no means a mere elevation; for, owing to the peculiar arrangement of the fibres of this part of the heart, it is made to describe a spiral curve from *right to left*, and from behind forwards. * * * The diastole of the ventricles, according to Cruveilheir, has the rapidity and energy of an active movement, triumphing over pressure exercised upon the organ so that the hand closed upon it is opened with violence." Dr. Halford, who has made many experiments and observations, and recently published a work on this subject, says, that "during the systole, or contraction of the ventricles, the base of the heart approaches the apex, the latter at the same time is pressed downwards, backwards, and from right to left, de-

scribing a part of a circle; the ventricles assuming a contracted *globular* form, descend, describing also a part of a circle, but passing forwards and from right to left." This description agrees with Dr. Carpenter's on the whole, but differs from it in that Dr. Carpenter maintains that the base is stationary and the apex is drawn upwards, while Dr. Halford says that the base descends and approaches the apex.

Dr. Dalton, however, in his work on Physiology, as well as in his more recent lectures on the Circulation, puts forward an entirely different explanation. He corroborates the description given by Harvey, and maintains "that the heart, at the moment of the ventricular contraction, *elongates*—the action of the spiral and circular fibres of the ventricles tends to draw the sides of the organ together at its base, and to shoot out or protrude the apex. As the apex starts forward in this way, it strikes against the walls of the chest, and produces the impulse or 'shock' of the heart, so-called, which is felt externally. It is easy to see that the finger, laid upon the point of the heart, is lifted with violence with every contraction of the ventricles. * * * The next point to observe particularly," he says, "is the hardening of the heart at the time when the ventricles contract. The fibres of the heart, like those of any other muscle, grow rigid during contraction, and the whole organ assumes a condition of firmness and tension. At the same time the organ performs a well-marked spiral or rotatory movement upon itself, directed from left to right." It will be seen by these quotations how much physiologists differ even yet on this subject, as it is very evident that what Drs. Carpenter and Halford describe as the contraction of the ventricles, is to Dr. Dalton the dilatation. For ourselves, we are convinced from observation, as well as reasoning from the anatomy of the organ, that Dr. Dalton's description is the true one, and that the heart actually elongates during the contraction of its ventricles.

With regard to the cause of the rythm of the heart, opinions still differ, and to our mind no satisfactory explanation of this phenomenon has yet been offered. The opinion seems now to be gaining ground that the first sound of the heart (as heard in auscultation) is due solely to the tension of the auriculo-ventricular valves, and some experiments performed by Dr. Halford seem

to explode altogether the idea of its being caused by muscular contraction.

Dr. Dalton, in the Course of Lectures above mentioned, gives some very interesting observations on the effects produced upon the circulation by suspension of the respiration, which, as they differ from the views generally entertained, we will mention at some length.

We believe that the views generally held on this subject, are as follows: that when from any cause the respiration is suspended, the heart goes on as usual, blood is sent through the pulmonary arteries into the lungs, where from want of proper aeration it slowly traverses the capillaries, and what little gradually reaches the left ventricle is discharged into the aorta. The obstruction in the lungs continuing however, these become extremely congested, and little blood is able to pass to the left side of the heart, so that the right ventricle, auricle, and veins gradually become distended, while the left ventricle and aorta are nearly empty. Dr. Watson, describing death by apnoea, says: "The motion of the blood in the pulmonary capillaries is also, from the first, impeded, and its current gradually retarded, until it stagnates altogether; the lungs remaining full, the right chambers of the heart distended, and therefore less capable of contracting. Meanwhile the black blood flowing more and more tardily and scantily into the left chambers, leads, by its unnatural quality as well as by its deficient supply, to feeble contractions, and this side of the heart is comparatively empty."

According to Dr. Dalton's observations on animals, in which the respiration had been suspended by woorara, ether, or by breaking up the medulla oblongata—the following phenomena (which we will give as nearly as possible in his own words) were observed. He first noticed that immediately after the suspension of the respiration, the *left* side of the heart became distended as well as the right, or, if anything, the left more than the right. On the right side the auricle and ventricle become distended nearly at the same time, but the ventricle, if anything, rather the first, and on the left side the ventricle and auricle enlarge before the veins, while the pulmonary artery enlarges before the pulmonary veins and the left auricle. Everywhere the ventricle swells before the auricle, the auricle before the veins, and *the great arteries lead-*

ing from the heart swell before either. The following is the order in which the changes are observed: At first, there is a very slight swelling of the cavities of the heart, which takes place almost immediately after the stoppage of the respiration. At this time blue blood begins to pass through the capillaries of the lungs and to appear in the left side of the heart. The venous blood thus passes into the left auricle; from the left auricle into the left ventricle; from the left ventricle to the aorta, whence it is distributed to the arterial system. As soon as the blood has fairly found its way into the arterial system there begins an excessive distention of the cavities of the heart, but preceded by a distention of the arterial system and the aorta. These become engorged because the venous blood which they contain, arriving at the capillaries, is not fit to circulate through them. It hence stagnates here, or at least becomes excessively retarded, and begins to exert a backward pressure on the arteries. The aorta sometimes becomes distended to one fourth more than its original diameter; and at the time the aorta is so enlarged there is no sensible distention of the *venæ cavæ* in the neighborhood of the heart. Finally, the heart's action becomes labored and spasmodic, blood is driven forcibly into the aorta, but owing to the already excessive distention of the latter it regurgitates into the ventricle, and as the heart's action becomes gradually weakened, there is merely a flux and reflux of the blood between the aorta and ventricle with each contraction. There now occurs another change; when the heart is no longer able to drive the blood into the aorta, the elastic force of the arteries comes into play, and forces the blood from them through the capillaries into the venous system. The aorta and other arteries thus gradually become emptied and return to their former diameter, the heart meanwhile still continuing to beat feebly. At the moment of death, accordingly, when all action of the heart has finally ceased, the arteries are empty, or nearly empty of blood, and the *venæ cavæ* in the vicinity of the heart are moderately engorged. The auricles and ventricles are distended with blood, rounded and bulging in shape, elastic and fluctuating to the touch. After death, however, another change takes place. A *post-mortem* contraction of the heart occurs, which is especially powerful in the left ventricle owing to its greater muscular development. This is the rigor mortis, similar

to that in other parts of the body except that it is established much more promptly. The effect of this is to drive the blood contained in the left ventricle into the aorta, and the arteries force it on as before, and the great veins of the chest and abdomen thus become the receptacles of the blood after death. This engorgement of the veins and the right side of the heart is always observed after death from apnoea; but we think that their cause has not hitherto been properly understood and explained.

Action of Glands.—In a recent course of lectures delivered by M. Bernard on the “Experimental Physiology of Digestion,” the following points appear deserving of a special notice.

Commencing with experiments and remarks upon the saliva and the salivary glands, he inserts tubes into the parotid ducts of the horse and dog, when the following results are observed: At the sight of food the saliva flows in a stream from the ducts. The secretion itself is found to be alkaline to the test-paper, and perhaps as a consequence of this, when a few drops of acid are poured into the mouth a flow of saliva is readily effected; whereas, when an alkaline solution is substituted no such result is observed. When food is put into the mouth, and the animal begins to chew, it is observed that the saliva flows merely from the gland on that side of the mouth on which mastication is going on, and hence, these glands are alternately called into action, accordingly as the food is on one side or the other, and during the interval the secretion almost entirely ceases.

The *elective action* of glands is well illustrated in experiments on the parotids. When iodine (solution of iodide of potassium) is injected into the veins, it almost immediately appears in the parotid secretion, whereas it is only with the greatest difficulty that the salts of iron can reach the saliva. We may, however, effect this by combining the two elements, as in the use of iodide of iron. When iodic potassa is administered to a dog, traces of it may be found in the saliva for several weeks together; and Bernard suggests that this proceeds from the fact that, when taken, it is excreted from the parotids, again swallowed, absorbed and excreted, and this continues till the whole may gradually be removed by the action of the kidneys.

It is stated that every gland has two classes of nerves connected with it. To one belongs the property of stimulating the secretion

peculiar to the gland; whereas the second excites only the transudation of water from the blood. The motor nerve, as it is called, of the parotid gland, is derived from the auriculo-temporal branch of the infer. maxil. division of the fifth nerve. When this nerve is divided, secretion from the parotid no longer takes place, not even when vinegar, sapid substances, and other excitants are placed in the mouth; on the contrary, when this motor nerve is galvanized there is an increased and abundant flow of aqueous secretion. When the sympathetic nerve is divided, no change is observed in the secretion of saliva from the parotid; when the cut end of the nerve is connected with a galvanic apparatus, however, the secretion is not increased but diminished or even suspended for a few moments—the character of the secretion remaining the same. This is explained by the fact that excitation of the sympathetic causes a contraction of the arteries, and hence there is a diminished supply of blood to the gland.

The submaxillary gland presents the same general nervous influence as the parotid, the motor nerve in this case being the chorda tympani. The excitation of the sympathetic not only diminishes the quantity of the secretion but renders it more viscid. With regard to the comparative offices of the salivary secretions, it is found that when vinegar is put into the mouth, the saliva from the submaxillary gland flows at once; then that from the parotid next, and last of all that from the sublingual gland. It is hence inferred, that the secretion of the submaxillary ministers to the sense of taste; the secretion of the parotid is connected with mastication, and that of the sublingual with deglutition.

In his remarks upon the œsophagus, nothing new is given except the statement that, when the pneumogastric nerves are divided there is a spasmodic contraction of the cardiac orifice of the stomach, which prevents food from passing. The animal operated on still feels the sensation of hunger, and eats readily, but the food can only pass as far as the cardiac orifice; here it is arrested, and after a time it is found that the whole œsophagus becomes filled until the food presses on the larynx, and a fit of suffocation ensues.

In the stomach, the same nervous influence is perceived in the secretion of gastric juice as was seen in the salivary glands. The pneumogastrics are the motor nerves to the stomach; when they

are galvanized the secretion flows abundantly; when the sympathetic nerve is galvanized the secretion is diminished or arrested. It is said that all portions of the mucous membrane of the stomach do not secrete gastric-juice alike, but that this property is restricted to the pyloric portion.

The biliary *secretion* takes place during the *intervals* of digestion. While the animal is fasting, it accumulates in the gall-bladder and is poured into the duodenum only when food reaches the stomach. As soon as digestion begins, the bile flows from its reservoir and mixes with the food, but no more is then formed within the liver, for this organ now begins to exert another kind of activity, and is occupied in producing grape sugar. Bernard's experiments agree with Schwann's that those animals in which the biliary duct is tied, and a fistulous opening established between the gall-bladder and skin, gradually become emaciated and die. But as opposite results have been obtained by other observers, he admits that experiments can not enable us as yet to decide whether bile is really a secretion or an excretion.

In 1848, as is generally known, Bernard announced the discovery of the formation of sugar in the body from the blood, and that the organ which possessed this function was the liver. Subsequent experiments induced him to modify his views somewhat; as he afterwards discovered that the blood was not immediately transformed into sugar, but that a substance called by him "glycogen," was formed in the liver, and this was subsequently changed into sugar. These views have met with much opposition, although they are finally pretty firmly established. The most recent objection of any weight was made by Dr. Pavy of Guy's Hospital, who has performed many experiments, and from their results attempts to prove that the presence of sugar is due to *post-mortem* occurrence; that as long as life continues glycogen only is to be found, and that not till after death does the transformation into sugar begin.

Dr. Harley has recently read a paper before the Royal Society, detailing experiments made by himself and Dr. Sharpey, in which Dr. Pavy's conclusions are refuted: and it is satisfactorily proven that sugar itself is found in the circulation. Great care seems to have been taken to avoid all sources of error, and no time was

allowed to elapse between the withdrawal of the blood and the application of the test, as in the following

Experiment.—A dog was fed solely on flesh during four days. Three hours after the last meal, an ounce and a half of blood was drawn from the femoral artery, it being made to flow directly into a boiling mixture of water and acetic acid. After the coagulation and separation of the albumen, sugar was distinctly ascertained to exist in the fluid. This experiment was repeated several times with the same result.

Dr. Pavy states, that the sudden abstraction of heat from the liver, after its removal from the body, checks the transformation of the sugar-forming material, and thereby enables us to act on the hepatic substance while in the same chemical condition as during life. The plan he recommends is, to destroy a dog by pithing, and instantly to slice a piece of the liver, and throw it into a freezing mixture of ice and salt. In which case, he says, that the absence of sugar is almost complete; and thence concludes that the presence of sugar in the liver can no longer be looked upon as “a natural condition;” but “is in reality due only to a *post-mortem* occurrence.” Dr. Harley repeated the experiments with the above precautions, and nevertheless constantly found sugar present in the blood of the liver.

Experiment.—A dog was fed for 14 days solely on flesh. It was then killed, the abdomen instantly opened, a portion of liver cut off and thrown into a freezing mixture of ice and salt. When frozen it was sliced into the boiling mixture, and, on the application of Trommer’s test, sugar was found to be present. Forty minutes after the death of the animal, another portion of the liver was tested, and sugar was found present in larger amount; thus confirming Bernard’s statement, that the transformation of glycogen goes on after the death of the animal. Several other experiments are given; but as the result is similar in all cases, we think these sufficient to indicate his manner of proceeding, as well as the results obtained; and we will therefore merely give the conclusions which he draws:

1. Sugar is a normal constituent of the blood of the general circulation.
2. Portal blood of an animal fed on mixed diet contains sugar.

3. Portal blood of a fasting animal, as well as of an animal fed solely on flesh, is devoid of sugar.

4. The livers of dogs contain sugar, whether the diet is animal or vegetable.

5. Under favorable circumstances saccharine matter may be found in the liver of an animal after three entire days of rigid fasting.

6. The sugar found in the bodies of animals fed on mixed food, is partly derived directly from the food ; partly formed in the liver.

7. The livers of animals restricted to flesh diet possess the power of forming glycogen, which glycogen is, at least in part, transformed into sugar in the liver ; an inference which does not exclude the probability of glycogen (like starch in the vegetable organism) being transformed into other materials besides sugar.

8. As sugar is found in the liver at the moment of death, its presence can not be ascribed to a *post-mortem* change, but is to be regarded as the result of a natural condition.

III. *General Pathology.*

Modern pathology, in the last decennium, has evidently been assuming a new direction, and entered the path, in which Virchow, with clear eye and steady hand, has taken the lead. It has gradually discarded, to a great extent, the speculative doctrines of the ultra neuro-pathologists, and mitigated orthodox humoralism ; it evades the extremes of both, yet without making a compromise between them ; vindicating the importance of the tissues and their active elements, the cells, yet leaving to the blood and to the nerves, truly important tissues—all that is due to them. The modern conception that subtracts from the idea of disease all that is ontological—the conviction that there exists no pathological entity, no abstract principle of disease, but that the latter is only an expression of physiological activity deviated by anomalous circumstances—has laid the foundation to that “ cellular pathology,” which Virchow has now boldly enunciated. The nervous system, as well as the blood, are so constituted and situated, that they transmit to other tissues the causes of disease—an irritating, a poisoning or other influence—and have therefore in the eyes of neuro-pathologists and extreme humoralists, respectively, ob-

tained the unenviable renown of being the primary and essential seat of disease. Physiological activity, however, resides not in the nerves alone, nor yet in the blood, but is common to all tissues, and therefore all tissues may and do form the basis of disease.

Bernard, the celebrated physiologist of France, in a series of lectures on Experimental Pathology, (*Med. Times & Gazette*, 1860,) speaks of diseases that are induced by means of the nervous influence; others occasioned by means of catalytical agency, and finally, those created by deviations in the process of histological evolution. It is the latter class of cases which we have been accustomed so persistently to overlook, or to explain erroneously. *Bernard* endeavors to draw a perfect parallel between the phenomena of life in health and disease. He says: "We are compelled to admit the existence of three principal classes of phenomena within the living body, which, although closely connected through reciprocal influence, exist independently of each other: 1. Nervous phenomena, embracing all the mechanical actions of life; 2. Catalytical phenomena, embracing the various kinds of fermentation; 3. Histological phenomena, embracing the entire results of cellular evolution, or the process of development."

The greater number of diseases *Bernard* is ready to attribute to the influence of the nervous system, as the following words will show: "If in the case of an adult in the full enjoyment of all his faculties, we ask ourselves, what is the regulating agent, what the *primum mobile* of all physiological actions, we are constrained to reply, that its seat is in the nervous system, * * * it presides over all organic functions, and * * * while it is the origin of all the normal phenomena of life, it is also that of all pathological action. Fever, itself, that essentially medical symptom, can be excited by a mere mechanical irritation of the nervous system, and the products of inflammation * * * be called into existence in a similar way. It is therefore a fact, the perverted state of the nervous system gives rise to a great variety of diseases, not only of a general, but also of a local character. But there exist in disease an immense number of other phenomena, which, at first sight, it appears impossible to produce by a simple lesion of the nervous system; I allude especially to the alteration or modification of the fluids of the body,

which takes place in the course of certain maladies. Now * * * a vast number, if not all, of these morbid changes are still to be traced to the action of the nervous system, and they can be reproduced at pleasure," (such as albuminuria, diabetes, etc.)

Bernard's assertion, that many diseases can be produced artificially by irritating or destroying certain parts of the nervous system, does not however deny that all these can be produced by other means. He states that "every disease which gives birth to morbid tissue is evidently a perversion of the nutritive function," and that the influence of the nerves on this act can not be denied. Truly, most local pathological processes can be produced by irritation through the nerves of the part,—but, also, as has been found (His, Billroth, Virchow, etc.), by *direct* irritation without the intervention of nerves.

Fever.—Of whatsoever origin, Bernard (*Clinique Européenne*, 1859) declares fever to be produced by some action upon the nervous system *only*; to consist in a sort of paralysis—temporary and incomplete—of the sympathetic nerve. If we cut the sympathetic nerve in the neck, the same phenomena are produced locally as we see in fever; by galvanic excitation of the nerve, these symptoms are made to disappear entirely. The febrile condition is in all respects similar to the state thus artificially produced. The cold stage in the commencement of fever can be experimentally induced by galvanic irritation of the central end of any spinal nerve. Some transitory cause may produce a disturbance of general sensation, then the cold stage is induced by reflex action of the sympathetic, and thereupon follows a relaxation of the nervous activity, with consequent increase of circulation and temperature, etc.: thus Bernard portrays the course of fever.

This theory is combatted by Prof. Schiff of Bern, (*Allg. Wiener Med. Ztg.*, 1859,) who is of opinion that the cold stage does not necessarily precede the fever, nor is the primary condition of it; it is ascertained, that the cold appears only in those parts, the vascular nerves of which do not cross within the spinal marrow, while in other parts the temperature is elevated from the very beginning. Cold and heat are therefore independent of each other; but having a common source, their succession may be easily explained without supposing the one to be the

necessary condition of the other. Furthermore, the heat and congestion are active states, not the passive results of a paralysis of the vasomotor nerves,—although *Schiff* does not deny the possibility of a pathological increase of temperature produced solely by a paralysis of the sympathetic or trigeminus.

Similar to Bernard's theory is that announced by Handfield Jones ; (*Brit. Med. Journ.*, 1858 ;) some of the principal propositions of which are these : fever may be caused purely by nervous exhaustion ; the nervous power of the cerebro-spinal system may sink extremely without producing fever ; but paralysis of the sympathetic nerves is probably essential in all fevers. Jones explains the increased action of the heart through weakened action of the medulla oblongata or pneumogastric nerve.

A different opinion is held by Dr. Campbell of Georgia, (*Trans. Amer. Med. Assoc.*, vol. x. & xi.,) who considers the cerebro-spinal system capable of producing some forms of fever. He remarks, that fevers are caused by aberrated nervous action, and the only reliable basis for their classification is by this law ; but that, as there are two departments in the nervous system—the cerebro-spinal, the normal actions of which are interrupted and paroxysmal, and the sympathetic, with the characteristic of continued action—so there are two grand classes of fevers, corresponding in their nature to the peculiarity of each department of the nervous system, namely, cerebro-spinal fevers, which are all paroxysmal, and ganglionic fevers, all continued.

Chlorosis.—Following the classification of diseases which Bernard offers us, who seems to insist upon the nervous system being the cause of all functional derangement ; or, in his words, of deviation in “all the mechanical actions of life,” we must notice in this place a new theory on *chlorosis*, recently brought forward by Maack, (*Arch. f. wissenschaft. Heilk.*, vol. iv., p. 1.) The development of this malady in a healthy girl can not be sufficiently accounted for by the old theory ; the same quantity of iron is introduced with the food now as before ; a want of iron can not be the cause. Only the power of assimilating this iron so as to form hæmatine is lost. This however is only the first consequence, not the ultimate cause of the disease ; which M. supposes to be an insufficiency or want of power on the part of the liver to produce sugar ; for inasmuch as the formation of

hæmatine requires sugar, (?) a want of hepatic sugar will prevent the production of hæmatine even when a sufficient quantity of iron is introduced into the blood. Therefore, also, sugar must be a curative agent in chlorosis, as it (honey) is really found to be; and iron, Maack thinks, is efficient only by promoting the glyco-genic function of the liver. Chlorosis and diabetes seem to be, in their nature, diametrically opposed to each other; and if we found means to produce chlorosis artificially, we would have discovered the radical remedy against diabetes. Bernard, if he adopted this view, must call this disease also a nervous one.

But Bernard by no means shows himself an exclusive neuropathist, as might be inferred; he alludes in his lectures to "certain affinities in which nervous influence does not appear to interfere—septic, virulent, and contagious diseases." These affections, including eruptive fevers and the like, he classes in the category of *catalytical diseases*, "which it is impossible for us to produce without having recourse to a special virus." The latter is always a sort of ferment, that reproduces itself and induces certain changes in the blood by that mysterious process, which for the sake of brevity we name *catalysis*.

Dyscrasia and Diathesis.—The subject of *dyscrasia* and *diathesis* is also alluded to in one of Bernard's lectures, (on diseases arising from the vitiated development of cells,) wherein he gives a general sketch of cellular pathology, which he seems to endorse. The perversion of the normal evolution of tissues frequently gives rise to diatheses; "sometimes they are the result of a profound change in the fluids of the economy; sometimes they originate in the introduction of peculiar poisons, which after having once penetrated into the system, can in no way be expelled; if there existed, for instance, a poison, which none of our organs could eliminate, it is clear that after penetrating into the torrent of the circulation, it would nowhere find an issue, and would in consequence become the origin of permanent modifications in the economy." Bernard agrees with *Virchow* on this point also, that "individuals affected with local cancers are not properly in a state of a disease, as long as the organs affected are not altogether essential to life;" or, in other words, that cancer primarily is a local disease. "But, when, at a later period, the disintegration of the elements which constitute the morbid production have

poisoned in some measure the whole economy, by pouring into the torrent of the circulation fluids impregnated with the noxious principle, then, indeed, the affection becomes a general complaint, and its nature entirely changes. Cancer is not a diathesis in itself; but the subsequent cachetic state is evidently diathetical." These views would confirm the law of Virchow, that every dyscrasia is localized, and "dependent on a continued introduction of noxious substances from certain points" within or without.

An instance of this kind is given in a theory on the origin of *tubercle*. Toulmin, in a paper to the Harveian Society of London, (Med. Times & Gaz., April, 1860,) "offered as the proximate cause of tubercle in all cases, the breathing of impure air; or of air in so small a quantity as to render it impure, especially during the night;" or the partial suppression of cutaneous respiration, induced by neglect of the culture of the skin. He observed, that whenever this was the continuous state of existence, the result must be a deficiency of oxygen in the red globules of the blood; and as the consequence of this, the deposition of plastic fibrin in an incomplete state of oxydation, and therefore of organization, and incapable of being ultimately got rid of by change of matter; it consequently remained as an extraneous, adventitious substance in the system, offering to the observer all the characteristics of tubercle. (The arguments, however, evince some deficiency of information as to the histological and chemical nature of tubercle.)

An admirable essay on the subject of tubercle, in which a similar, but more precise and elaborate opinion is expressed, has been written by Dr. Ellis of Boston, (Amer. Journ. Med. Sc., 1860). The substance of the paper the author gives us in the following *resumé*: "It is not a specific exudation; it does not exist as such in the blood. The yellow variety is always the result of metamorphosis—of degeneration. It is altogether probable that it is owing to a 'degraded condition of the nutritive material,' which differs from that furnished under ordinary circumstances, 'not in kind, but in degree of vitality or capacity for organization.'" In reference to the important question of the relation between gray tubercle and inflammation, Dr. Ellis remarks, "it is possible that as exudations are often the result of inflammation, their character may be so influenced by general or local

causes, that 'tubercle' is the consequence, when it might never have been developed under ordinary circumstances. * * * Tubercle makes its appearance sometimes with, and sometimes without inflammation; and, certainly, the recent granulations, in most cases, show no signs of an inflammatory origin; the tissue in their neighborhood is remarkably healthy. If, therefore, they generally or often exist without apparent inflammation, the presence of the latter should rather be regarded as a consequence and not a cause."

Inflammation.—The nature of *inflammatory processes*, finally, continues to be a constant subject of investigation, as it is the most general of all pathological phenomena. Histological researches instituted in aid of the pathology of inflammation have not been wanting in the years just passed. Prominent among them are those of *Barwell* on the Inflammation and Ulceration of Articular Cartilage, (*Brit. & For. Medico-Chir. Rev.*, xxiv.,) and on Osteitis, (*ibid*, xxv.) *Barwell's* views on the subject of inflammation are essentially those of *Virchow*; he arrives at the conclusion, that inflammation consists in "a series of active changes in the cells of any structure," and affirms, that "the increased action occurring in cartilage may serve as the type of the inflammatory process in its simplest form." This increased action comprises swelling and division of the nuclei and cells, the formation of blood cells, which burst and discharge their contents, of new cells, and corresponding (secondary) changes in the intercellular substance. "In osseous tissues, we find that inflammation consists of precisely similar actions to those which constitute that abnormal state in cartilages; namely, a superabundant growth of the cells of the tissue, which, destroying the intercellular substance, become converted into granulation or pus cells, or may, by becoming fatty and losing quickly their nutritive action, cause the integral death of the dependent tissue. The actions, then, of a vascular and a non-vascular tissue under inflammation are essentially the same; and it is singular to observe, that half a district supplied by one capillary may be in an early stage of inflammation, viz., induration; while the other half shall be dead, necrosed, showing how very little in reality the vascular supply has to do with the inflammatory condition." The *development of pus cells*, which *Barwell* finds to originate in the cells of the

inflamed tissues that he examined, has been investigated in many other tissues, with the same result, by *Buhl*, (*Virch. Arch.* xvi.,) *Rindfleisch*, (*ibid.*, xvii.,) *Burckhardt*, (*ibid.*,) etc.—all of whom agree, that the corpuscles of pus take their origin from connective tissue (and perhaps epithelial) cells, in which increased action is set up. *Rindfleisch* observed their development, step by step, in the cornea; *Burckhardt* in the mucous membrane lining of the urinary passages, and *Buhl* found them to originate from the epithelial cells of the alveoli of the lungs; in the latter case, mother cells were also met with,—the appearance of which made it probable that pus cells may be formed by endogenous development, as well as by division. *Buhl's* observations admit of no other explanation, in his opinion, but that “the pus corpuscles are not formed exogenously in a fluid blastema, an exudation, but that they arise from preëxisting normal cells, and that the mode of development is not only that of nuclear division, but also that of endogenous free generation by cleavage of the cell contents. *Billroth*, who studied minutely all the details of suppuration in many tissues, arrives at the conclusion, (*Beitr. z. Pathol. Histologie*, p. 56,) “that the formation of pus belongs almost exclusively to the connective tissue; that altogether the connective tissue corpuscles” (including the cells of bone, cartilage, etc.) “most rapidly produce new cells by division, and are in every respect far more capable of development than the cells and nuclei of other tissues.”

Inquiring into the proximate causes of inflammation, the essence of which consists primarily in increased action of the cellular elements, we permit ourselves to notice here, even if but in few words, the views of our gifted colleague, *Dr. Watters*, (*St. Louis Med. & Surg. Journ.*, Nov., 1858,) although we are aware that the members of this Society are fully acquainted with them. *Dr. Watters* starts with the abstract proposition, that “all physical phenomena depend upon two primary conditions, *Form* and *Motion*,” and deduces therefrom by clear and forcible argumentation the doctrines: that in the phenomena of life the form is given in the peculiarly adjusted living organism,—the motion represented by decay; decay is the vital motor;” disease, attended with excitement or depression, consists essentially in a disturbed relation between decay and renewal, or oxydation and

nutrition. "When the causes of inflammation are considered, it is observed that whatever cause tends to produce greater *decay* in a part than takes place in health, tends to produce inflammation in that part." If decay in any part is *suddenly* increased, it will produce disease, (inflammation,) "because it requires time to change the action of the whole machinery,"—to increase renewal in the same ratio.

The influence of the nerves on the inflammatory process has been very thoroughly tested by *Samuel*, (Koenigsberger Med. Jahrb., 1858,) who instituted experiments on frogs and different mammals. He acknowledges, that inflammation in cold-blooded animals is of another form than in mammals; that it is characterized in the former especially by stasis, in warm-blooded animals by exudation. Electric irritation of the ganglion of Gasserius invariably produced inflammation of the cornea and conjunctiva, which was determined to be independent of any subsequent traumatic influences. The other parts of the eye derive their trophic nerves from other ganglia, and therefore did not become inflamed. The results of these very valuable experiments are condensed by the author in the following: "1. Acute inflammation is a lesion of nutrition, induced by intense irritation of cells, tissues, and organs. 2. The irritation can have acted on these parts directly, or indirectly, by the influence of their trophic nerves. 3. The lesion of nutrition consists in an overtransudation (hypercrinie) of plasma from the vessels, increased reception of plasma into the tissues, and active new-formation of cells. Among other lesions of nutrition it is distinguished by the rapidity of its access with the character of danger. (Virchow.)"

These sentences will not be found conflicting with the views of Dr. Watters, as above repeated, if we but translate the word "irritation" by "disturbed relation between decay and renewal." The name "irritation" necessarily leads to the assumption of "irritability;" and these terms, in the sense in which they are here used, have been introduced by Virchow, and are defined and defended by himself as follows: (Virch. Arch., xiv.)

Irritability is the criterion of every living cell and cell-derivative, which is manifested by certain actions the element is made to perform by means of external influences. Every irritating agency causes a mechanical or chemical change in the affected

element. This change is of a purely passive nature,—a simple lesion; it is strictly speaking, the *irritamentum*, which causes the action of the element, and brings into view the condition of “*irritatio*.” The irritative action thus appears as *reaction* against the irritating cause,—the preceding external *action*. The term irritation necessarily includes this reaction, and we are justified in speaking of irritable parts only so long as we see actions performed by them which do not simply belong to the extraneous passive disturbance. The activity of a cell is mechanical or chemical, like that of all bodies, but it is distinguished by the peculiar, and at the same time constant, adjustment of its particles. Virchow teaches, that the cell is the bearer of all vegetable and animal life; without denying, that the cell also is composed of atoms; without contesting the fact, that the properties of the cell itself are the resultant of the properties of its atoms—still he regards the cell as the ontological form—the person, as it were, of life. The reason of the peculiarity of cell action may be an atomic one; but so long as we are unable to reproduce by experiment the arrangement of atoms in cell form, we are constrained to regard it as something typical, and at all events to concede, that cell action is an entirely special and unique form of mechanical process, the details of which we are justified in distinguishing by special appellations.

Such is a very general and brief review of the leading points in the more important labors in physiology and pathology during the last few years—a review making no pretension to even an approach at completeness, but containing whatever of importance and interest we were able, in the short time allotted, to glean from the limited supply of recent medical literature which could be obtained.

F. W. WHITE, *Chairman*.
E. J. MARSH,
G. H. E. BAUMGARTEN,
Committee.

PART II.

REVIEWS AND BIBLIOGRAPHS.

ARTICLE I.

On the Theory and Practice of Midwifery. By FLEETWOOD CHURCHILL, M.D., M. R. J. A., *Fellow of, and Professor of Midwifery and Diseases of Women and Children in, the King and Queen's College of Physicians in Ireland; Examiner in Midwifery in the Queen's University in Ireland; one of the Presidents of the Obstetrical Society; Associate Member of the College of Physicians, Philadelphia, U. S., &c., &c.* With additions, by D. FRANCIS CONDIE, M.D., *Fellow of the College of Physicians of Philadelphia; Author of "a Practical Treatise on the Diseases of Children, &c., &c. With one hundred and ninety-four Illustrations. A new American from the fourth corrected and enlarged English edition. Philadelphia: Blanchard & Lea. 1860.*

This is a new American edition of a well known and highly appreciated work, to which the author has added what was found wanting, pruned what appeared redundant, and corrected what was vaguely or carelessly expressed. It is unnecessary to say more than that it will be found to be a full, clear, and accurate exponent of the existing state of every department of midwifery, whether considered as a science or an art; in style and arrangement well adapted to the wants of the student and practitioner. In this edition, Dr. Churchill presents very clearly his views on the operation of craniotomy, as elicited in a recent controversy on the subject, in which he has been engaged, setting forth the true grounds of the operation and the circumstances under which it is justifiable and proper to resort to it. Dr. Condie, too, the

American editor, has added a valuable and interesting paper on the "*Qualifications and Duties of the Monthly Nurses*"—a subject of no little interest to the practitioner of midwifery, who has daily to encounter these indispensable pests of the lying-in room—so, however, only for want of the knowledge and a disposition to carry out the directions here given. To be had at the book stores of our city.

ARTICLE II.

A Manual of Auscultation and Percussion, as applied to the Diagnosis of Diseases of the Heart and Lungs, and to Pregnancy. Translated from the French of M. M. BARTH and ROGER. By J. H. POTTENGER, M.D., of St. Louis.

The work of Barth and Roger has been so long before the profession, and its reputation so well established, that it requires no praise at our hands. The above is a translation of the *résumé* and other portions of this work. It is intended chiefly as a reference book for students when learning practically diseases of the chest, and as such is well deserving of extended circulation. The translation appears to be well done, its style is clear and fluent, and we have found it quite literal and exact in those portions which we have compared with the original.

We regret, however, that Dr. Pottenger did not translate the entire work, as its value would then have been much increased for the student and especially for the practitioner. The *résumé*, though complete, is too short and condensed for acquiring a thorough acquaintance with the art of auscultation. Dr. Pottenger has inserted also the tables of auscultatory signs from the work of Dr. Walsh.

M.

PART III.

RECORD OF MEDICAL SCIENCE.

Croup without Croupal Cough.—Dr. Gottschalk relates some cases to show that while, on the one hand, a cough precisely resembling that of croup may be present in mere laryngitis, the characteristic cough may be entirely absent in true croup attended with fatal exudation.

Remarks on the Theory of Syphilisation. By W. BOECK,
*Professor of Medicine in the University of Christiana,
Norway.*

[The following is not translated because it is entirely new, but because it contains all that is known on the subject, stated in a common-sense-like manner.—W.]

As syphilis (says the eminent professor) is one of the questions of the day, let us proceed to notice the labors relating to it.

In No. 8, *Gaz. Heb.*, of the present year, (1859,) I published a succinct summary of the brochure of Mr. Danielssen on syphilisation, as a curative method of syphilis and *spedalskhed*, (elephantiasis.)

In that resumé I gave my theoretic reflections relative to the effect of syphilisation, and there limited myself to giving my understanding of the saturation of the organism by the chancrous virus, successive inoculations with which produce cure of syphilis, and immunity against it for the future.

In Christiana there have been hundreds of persons cured of syphilis by syphilisation. The facts can not be denied; but how explain them is a question as interesting as it is difficult of solution.

When I observed my first cases, and that too with the greatest exactness, I judged that syphilisation, in relation to syphilis, produced in the organism a disposition analagous to that which vaccination produces in the same organism, in relation to variola and its own peculiar disease, that is, *vaccina* or cow-pox.

This did not help us much in the understanding of the matter, for nothing is known of the manner by which vaccination itself operates.

What we are sure of, and what it concerns us above all to know, is the salient fact of immunity which vaccination confers, for a long time, against variola and *vaccina*. This is at least what is claimed; we shall see if it is always true. In a word, does this immunity proceed from the impregnation of the organism with the vaccine virus, or from the destruction of the disposition which this organism possesses to contract variola or *vaccina*? One reason induces me to believe that we have nothing to do here with the destruction of an organic predisposition; namely, the children of parents who have recently had variola, come into the world without diminution of liability to the affection which their parents have already had. But because vaccination takes nothing from the organism, does it necessarily follow that it adds something to it, and especially that this something is impregnation or saturation of the humors with the virus? I am completely ignorant on this point, but I should be sorry to believe it; because a

saturation of the organism with a virus must be deleterious to the individual; therefore, I am inclined to admit that the disposition to contract the disease is averted or remains quiet. It does not appear in the individual, but exists in the body, because the offspring of the individual enjoying immunity, receives the aptitude to take the disease, and is born with it, and for immunity requires vaccination the same as if the parent had not been in a state of immunity.

Three women who had been syphilised gave birth to children in which the symptoms of syphilis appeared soon after birth. Would this indicate that the syphilis had not been extinguished in the mothers?

The affirmative is a mere presumption; for the syphilitic virus flows slowly through the organism, and the effect of the last inoculations continues after the ulcers have disappeared, and the patient has left the hospital. It is, moreover, requisite to take into consideration the time elapsed between a syphilisation and the moment of subsequent conception. We wait, therefore, for time to form a definitive opinion upon this point, and confine ourselves now in all that relates to syphilisation, to observe nature without preconceptions.

But let us put the case in its least favorable aspect. Let us confess that in respect to the condition of the offspring, we have gained nothing over the mercurial treatment. Still we have no cause to complain of this, seeing that the parents enjoy as perfect health as before having constitutional syphilis, and that the offspring may in turn be treated by syphilisation with much more benefit than mercurial preparations.

To anticipate here all which may be said against syphilisation, I acknowledge that in the last few days there has been a case of relapse, that of a man treated twenty-eight months ago. But this man had constitutional symptoms for a year before being treated. There are in such cases peculiar obstacles, concerning which I will explain my ideas on another occasion.

I now will give the reasons which lead me to suppose that syphilisation operates in a manner analagous to vaccination, and not, as many have pretended of late, simply as a derivative, that is, by producing ulcers which act as excretories of the morbid matter.

I will not devote any more time to theoretical considerations. Neither will I enquire whether there are other dyscrasias which are amenable to a similar purification, nor whether there is any other malady, which, having gradually penetrated, molecule by molecule, so to speak, into the blood, may be withdrawn from the latter through the skin in the same manner by derivatives. We should consider ourselves supremely fortunate were we able by means of cantharides to abstract tuberculosis, elephantiasis,

or cancer from the body. But, unfortunately, we find ourselves in the same condition with regard to syphilis as to these diseases. But as we have just said, a truce to all theories, that we may deal with facts. I desire to relate what I have collected in a multitude of observations, and then we will decide if there is any reason in supposing that syphilisation acts in a manner analogous to vaccination.

1. When a person with constitutional syphilis is inoculated with the virus of primitive chancre, *simple* or *hard*, and is continually inoculated every three days with the pus produced by the ulcer of the immediately preceding inoculation, the result is that a period will arrive when the inoculation will produce no effect. Is it because the matter has lost all its force? No; since if a non-syphilised individual be inoculated with the same matter, it produces as much effect as it did in the beginning of the process on the first individual.

2. If, instead of taking the matter from the last pustule, which no longer produces any result, we go back a little in the series and take it from a previous inoculation, we obtain a specific ulcer, and commencing from this new second focus, a new series of pustules may be produced in the same manner as before, with more or less close resemblance to the first in intensity, etc.

3. If two persons are inoculated at the same time, they arrive at immunity against the further action of the matter in about the same period.

But, if we take matter from one to inoculate the other, and *vice versa*, the matter of the last pustules, which in one case gave negative results in one of the individuals, will give positive results in the other, and *vice versa*, that is, during the progress of two or three series of inoculations.

4. Immunity with respect to a matter occurs at the same period, whatever the number of inoculations made at each time, whether one or many.

5. When the first matter will not produce any result, if we take other matter it will give a positive result, but for a series of pustulations much less numerous than that of the first matter, etc. Thus we get pustules and series of reproductions gradually decreasing, until we obtain a result negative in consequences, no matter what species of syphilitic matter we use in inoculation. I will repeat what I have before said; syphilitic matter finally will produce no more effect than a drop of water.

Can the facts cited be reconciled with a particular, and, as it were, anæmic state of the skin? Undoubtedly, we would say, that the new matter is more intense, since it is efficacious when the old is so no longer. But can this be affirmed when we recollect the inoculation with a matter of an older series, or rather when, as remarked above, in two persons inoculated during the

same period with the same species of matter, the matter of one must be inoculated into the other in order to produce results?

Why, finally, does the case in which three inoculations are made at each time, reach immunity no sooner than that in which only one is made?

Let us now refer to another question which has been the subject of much doubt; that of local immunity. Before I ventured to say anything of this, I had observed it in many instances. I conceived it so strange, that at first I thought I had deceived myself in observing it, or rather, that I should consider it the result of accidental circumstances. But, inasmuch as it is a positive phenomenon, we must yield to the fact and study it as it presents itself. The following is what I have observed in regard to this question:

1. When one region of the body has been inoculated to immunity, the matter which will no longer affect this part will produce a positive result in another portion of the body.

2. But the effect produced in the latter part will be weaker than if the matter had been primarily inoculated in this portion.

3. As to the influence which an inoculation has upon the entire body, it is *not* indifferent whether one part or another is inoculated. When repeated inoculations have been made in the thigh, even to complete immunity of the latter, the result thereafter obtained by inoculating the arms or sides is insignificant. When, on the contrary, we begin with the arms or sides, a subsequent inoculation of the thighs produces marked results, but, nevertheless, not so much but that the influence of the anterior inoculations of the arms or sides over the whole body may easily be recognized.

From this we see that the local immunity, far from furnishing an objection against the influence of syphilisation upon the organism, on the contrary, serves to confirm our belief in its reality.

"But it is objected that this does not conform with what has hitherto been understood by the word *immunity*; nor with what has been considered as constituting the true principles of physiology; this logic is inadmissible, say the opposers." The examples to which I have referred are, nevertheless, strictly true. Nature loses none of her rights; and it is as certain that there is a reason in reference to syphilisation as to every thing else; but it remains to be seen if this fact is entirely unique, or if, on the contrary, there are not other analagous facts. At last we have returned to the beginning. I do not consider it necessary to go further to observe them. We have them, to our notion, in vaccination. In some children which I have vaccinated in the last few years, I inoculated, eight days after vaccination, the matter furnished by the latter, into the arms and thighs, and sometimes obtained in the thighs vaccine pustules more or less developed.

We here have, moreover, the same local immunity, and I see with satisfaction, that this phenomenon has recently been observed in Paris by M. Coste, who having by accident punctured the extremity of the nose with a lancet charged with vaccine matter, had upon the part a vaccine pustule, when inoculation upon the arms, which he performed at the same time with the same matter produced no result.

It is quite possible that we shall hereafter succeed by means of syphilisation, in attaining greater accuracy in our conceptions of vaccination; for in truth all the viruses do not exhibit much difference among themselves. It is our duty to ascertain carefully their analogies and differences.

There is another important point in reference to local immunity. I refer to its duration, which hitherto has been generally confounded with its existence. As I have just said, immunity may be produced in all individuals; but weeks or months after, the same individual becomes again susceptible to the impression of syphilitic virus. Hence, it is of course possible to produce pustules on him again by a primary inoculation. But these can never be developed as fully as in the first syphilisation, and it will not be possible to produce in this case more than a very limited series of pustulations. Thus we see the organism has not the same aptitude to the influence of the syphilitic virus as before syphilisation. Some time after vaccination the individual may have varioloid, and long after, even variola. We do not say that after syphilisation the organism will return to the same condition as before, and that the virus inoculated will operate with the same activity and produce successive series of pustulations equal in number and intensity to the first; but analogy renders the affirmative probable.

My observations lead me to believe that repeated inoculation of primitive syphilitic virus impresses upon the organism a universal modification perfectly analogous to that produced by vaccination. From all of which I indulge the hope of having found in this method a very efficacious auxiliary in the treatment of syphilis, and the large number of successes hitherto achieved by means of syphilisation assure me that this hope is not chimerical.

[*Pacific Med. & Surg. Jour.*

Turning.—M. Van Eden advises that in performing the operation of turning the child in the womb, the woman should be placed on her hands and knees, or, as he calls it, *en vache*, and for two reasons: the movement of the hand is not impeded by the arch of the pubes, and the feet of the child are more readily grasped.—*Med. Times & Gaz.*

On the Iodide of the Chloride of Mercury in the Treatment of Skin Diseases, and especially of Couperose and Acne.
By M. AL. DEVERGIE.

This preparation, which possesses very powerful properties, was introduced by M. Boutigny, about fifteen years ago, for the treatment of couperose, acne, and other skin diseases, which are very obstinate, and often irremediable by ordinary means. In these cases, it is looked upon by many as a specific; but its chemical composition and therapeutical effects have not been studied with sufficient accuracy. The action of iodine on protochloride of mercury was first investigated by Planche and Soubeiran, (*Journal de Pharmacie*, t. xii, p. 651;) the product which they obtained presenting powerful escharotic properties. By varying the proportions of iodine and of protochloride, however, different compounds may be formed; and chemists have now ascertained that the so-called iodide of the chloride of mercury is not a definite chemical substance, but is a mixture of the chlorides and iodides of mercury, and generally consists of the bichloride and biniodide of mercury along with the protochloride. Such appears to be the composition of the substance manufactured by M. Boutigny, who, however, keeps his process secret. M. Devergie recommends the process of M. Dannecy, as yielding a product similar to that of M. Boutigny. Equal equivalents of iodine and bichloride of mercury are employed, dissolved in alcohol, which retains a great part of the bichloride in solution, and the salt which separates (iodide of the chloride) in this case consists of a large proportion of biniodide, and a very small quantity of the bichloride, mixed with an excess of calomel. Prepared in this way, the iodide of the chloride, like that furnished by M. Boutigny, is much less violent in its action than either the biniodide or the bichloride alone would be in the same dose.

M. Boutigny employs his preparations externally in the form of an ointment, internally in form of pills or syrup. The formula of the pommade de Boutigny is: Axunge, two drachms; iodide of the chloride of mercury, 12 grains—but more recently he has increased the proportion of the iodide of the chloride to 16 grs., and the ointment, of this strength, is now usually employed. The pills contain about one-fifth grain in four pills.

When applied to the skin, this ointment usually produces, after the second or third application, a feeling of heat and smarting, which lasts during most of the night if the pommade is used in the evening. Next day, if the pain has not been severe, the skin is merely reddened; but if the irritant action has been fully developed, the red surface is covered by an immense number of minute serous vesicles, which quickly dry up, leaving an epider-

mic crust. In most cases, the inflammation which is excited subsides rapidly, so that the application of lard or cold cream, for four or five days, allows the skin to return to its natural condition. Such are the usual results; but the effects, of course, vary with the strength of the preparation and the degree of sensibility of the skin—circumstances which must be attended to in the treatment of different cases. M. Devergie's mode of application is to spread the pomade, in very thin layers, uniformly over the skin, by means of gentle inunction with the point of the finger, for about one minute; this is repeated every twenty-four hours for two, three, rarely four days, and then stopped; the inflamed surface is next covered with lard or starch powder for three or four days, till the excited action subsides, and the application of the ointment is then renewed as before. This treatment is continued for five, six, or eight months, or even one or two years in case of relapse. It is the general opinion, that to obtain a complete cure the application must be repeated till the strong ointment, containing sixteen grains of the iodide of the chloride, ceases to exert any action on the skin; but M. Devergie considers the cure established when the skin is clear of eruption, and the ointment produces only a third or fourth of its previous effects. It is especially in couperose, a disease always difficult, and sometimes impossible, to remedy by ordinary means, that the iodochloride ointment exhibits the most remarkable effects. When the disease has not reached the tuberculated stage, it frequently cures it without requiring so long as six or eight months of treatment. M. Devergie relates a striking example of this in the case of an actor, who, in consequence of intemperance, had his face so blotched and disfigured that even with the assistance of paint he could not venture to appear upon the stage, and had to give up his engagements. In a few months he was completely cured. Although the cases are not always so satisfactory, M. Devergie strongly recommends the use of the iodide of the chloride in pomade as generally a very successful means for the treatment of couperose. In acne, generally, it does not always suit. It succeeds least in *A. sebacea* and *punctata*; *A. indurata* yields most easily, and next to it *A. miliaris*. The *acne rosacea* does not usually require this treatment at all. In all these forms of acne, sulphurous baths and other measures are requisite. In *mentagra* and chronic lichen, it is not more successful than other analogous remedies; in *lupus* and *eczema* it does not appear to do any good. With regard to the mode of action of the iodide of the chloride, M. Devergie holds very decided views. He denies entirely its specific action, and maintains that it cures by its topical effects only, and not by any influence on the constitution. He strongly disapproves, therefore, of the internal use of the remedy as quite unnecessary, and as likely to give rise to salivation, and to in-

jure the general health. According to his view, the cure is effected locally, by a process of substitution. The iodide of the chloride, being a powerful irritant, induces an acute inflammatory condition, which takes the place of, and, as it were, substitutes itself for, the chronic sub-inflammatory action of the disease; and by changing the mode of vitality of the tissue, promotes a return to the healthy state. The application of blisters in chronic inflammation of the skin is a common example of the same principle of treatment. Whatever may be the value of this theory, the general view is important, that it is merely in virtue of its stimulant or irritant properties, exerted locally, and not by any specific action, that the cure is accomplished. Finally, M. Devergie expresses the wish that in pharmacy some uniform method should be adopted of preparing the iodide of the chloride of mercury, so that it may be procured always of the same strength, and may be introduced into the therapeutics of legitimate medicine.—*Bull. Gen. de Therap.; Edinburgh Med. Journal, Dec., 1859.—Cleveland Med. Gaz.*

New Application of Chloroform in Neuralgia and in certain Rheumatic Complaints.

[At a meeting of the Medico-Chirurgical Society of Edinburgh, Mr. Little, F.R.C.S.E., of Singapore, made the following communication, which we reprint from the Edinburgh Medical Journal for April, 1860.—Eds.]

During my residence at Singapore, East Indies, I was at one time in the habit of using liquor ammoniæ to produce an immediate blister, when instantaneous counter-irritation was thought necessary in certain cerebral affections, &c., a piece of lint soaked in ammonia being applied to the part, and covered with oil-silk, when in a few minutes so much irritation was produced as to raise a blister. In administering chloroform to my patients, I noticed that their lips were often partially blistered by it; and recollecting the mode of using the ammonia, I thought of trying the chloroform in the same way, but found that neither oil-silk nor gutta percha tissue would answer. I then used a watch-glass to cover the lint soaked in it, and with the best effect.

The manner of application is to take a piece of lint, a little less in size than the watch-glass to be used (which need not be more than two inches in diameter), to put it on the hollow side of the glass, to pour on it a few drops of chloroform sufficient to saturate it, and then to apply it at once to the part affected, keeping the edges of the glass closely applied to the skin by covering it with the hand, for the purpose of keeping it in position, as well

as of assisting the evaporation of the chloroform. This may be done from five to ten minutes, according to the amount of irritation wished for.

The patient during this time will complain of the gradual increase of a burning sensation (not so severe as that produced by a mustard sinapism), which reaches its height in five minutes, and then abates, but does not entirely disappear for more than ten minutes.

To ensure the full operation of the remedy, it is necessary that the watch-glass be rather concave, that it be closely applied to the skin, and that the hand applied over it be sensibly warm. The immediate effect of the application is to remove all local pain in neuralgia, and relieve that of rheumatism.

Its effects on the skin are at first a reddening of the cutis, which in some cases is followed by desquamation of the cuticle; but this depends on the part to which it is applied, and also upon the susceptibility of the individual. In some cases, if the application is prolonged, a dark brown stain remains even for a week or ten days, the same effect as sometimes follows the use of a mustard sinapism.

In Singapore, I have used chloroform after this fashion in various neuralgias of the face, in inflammations of the eye and ear, in one case of angina pectoris, in several cases of neuralgia affecting the abdominal parietes, in lumbago, dysmenorrhœa, and in pain attending congestion of the ovary, &c.

Personally, I can testify to its great efficacy in two severe attacks of rheumatic inflammation of the eyes, in which the pain came on periodically about 8 A.M. with such severity that I thought the loss of sight itself would be preferable to its continuance. All other remedies, such as blisters, leeches, opium externally and internally, belladonna, &c., were of no avail in soothing the pain; water, almost boiling, applied by a sponge, giving only a little relief. I then thought of this use of chloroform, remembering how much it had benefitted my patients in other similar affections. The first night, the application of it to the temple relieved the pain in ten minutes; on its return the next night, the application again relieved it; and four times only was it required to remove completely the local pain; allowing, in the meantime, constitutional remedies to produce their effect. Since my return to this country, I have recommended this remedy on several occasions to persons suffering from neuralgia of the face and head, and always with the same good effects as in India; and the other evening one of my domestics was quickly and effectually relieved by it of a painful spasmodic contraction of the platysma myoides muscle, which prevented her raising her head from the chest. The chloroform was applied as directed, with immediate benefit, and next morning she was quite well, though in previous

attacks several days elapsed before relief was obtained. I have mentioned this method to several medical men of this city, who have found it of great benefit; and that it may be more extensively known, is my reason for now bringing it before the profession.

Dr. Keiller mentioned this plan had been tried with success in his wards.

Dr. Wright had used chloroform for similar purposes, by pouring it into a bottle containing blotting-paper, and applying it over the affected painful part. He has found it sometimes produce vesication, and leave a mark on the skin; but it had been effectual in removing pain.

[Mr. Little has received the following letter from Dr. Sclanders, House Physician to Dr. Keiller in the Royal Infirmary.

ROYAL INFIRMARY, March 14, 1860.

My Dear Sir: I have much pleasure in giving you the result of my experience in regard to the external application of chloroform in the way proposed by you. Soon after you made me aware of it, I saw a friend of mine, who suffered frequently from neuralgia of the left forehead. I proposed the remedy to him, and with the effect of immediately removing the pain. Owing to my having kept it too long applied, vesication ensued. Since then he has had no return.

I have since used it in several cases of neuralgia of the ovary and pleurodynia, as also in two cases of rheumatic pains in the joints, with marked benefit.

I am yours truly,

ALEX. SCLANDERS.

Dr. LITTLE.]

Area Celsi. By Prof. Dr. VON BAERENSPRUNG.

Three diseases causing the hair to fall out have been known to the ancient physicians: *calvities*, *defluvium capillorum*, and *alopecia*, with its variety *ophiasis*. The last named is *porrigo scutellata*, *herpes tonsurans*, undoubtedly connected with a parasitic fungus.

Alopecia corresponds to the modern appellation *porrigo decalvans*, the nature of which affection is not yet determined. Bateman ranged it among the pustulous eruptions; Sauvage, Fuchs, Wilson, and Rayer, explained it by an atrophical condition of the hair-roots; Cazenave by atrophy of the pigment; more recently, Gruby, Kuechemeister and Bazin delineated different fungi which they pretended to have discovered in this affec-

tion. But Hutchinson denies to it all parasitical origin and seems to be right in all his conclusions.

One or more circular bald spots, of varying size, appear on a densely haired head, exposing a smooth, pale skin, without any eruption. The hairs surrounding such spots are paler and less shining than usual, showing partly also a particular swelling which precedes their breaking off. The sensibility is greatly diminished in the bald spots themselves.

The loosened hair is found, under the microscope, to have its fibres separated, its root diminished and a great fragility imparted to it

All the hairy parts of the body, with the exception of the armpits and genitals, are liable to this disorder. The only cause of it is a locally diminished vitality; the nutrition of the hair being impaired, its color is destroyed, its fibres are divided (thus producing the appearance of a swelling) and its root atrophied. A disturbed influence of the nerves is always followed by a morbid condition of the hair, as may be observed in hemiplegic patients; Hutchinson is therefore right in pointing to internal disorders as causing the local external affection. Healthy persons never suffer from it; while it has been observed in those affected with scrophulosis and rachitis, as well as in patients recovering from febrile diseases.

The treatment ought to be local and general. Irritating but not corroding ointments, like the pomade of Dupuytren, may be applied; electricity is to be tried yet. Internally cod-liver oil, iodide of potassa and sarsaparilla, are recommended.

[*Ann. der Charité zu Berlin.*]

Experimental Pathology—Rational Principles of Therapeutics.—Lecture Delivered at the College of France. By M. CLAUDE BERNARD, Member of the French Institute, and Professor of General Physiology at the Faculty of Sciences.

GENTLEMEN: We have considered the two opposite points of view from which medical men regard the healing art; one class, as we have seen, recognize the existence of a *vis medicatrix naturæ*, or healing power in nature, to the influence of which they invariably attribute the return of the sick to health; the other class, indignantly rejecting this hypothesis, ascribe the honor almost exclusively to the medical man of all the cures which happen to be effected; and these two different opinions, it is not difficult to foresee, must of necessity become apparent in practice.

The partisans of the *vis medicatrix naturæ* maintain the principle of expectation, while their adversaries have recourse to a practice more or less energetic and varied.

Both parties have, to a certain extent, truth on their side; though it would be dangerous for medical men to attach themselves exclusively either to the one or to the other opinion. It is true, that nature frequently exerts herself in the cure of diseases, but her efforts, often impotent and ill-directed, stand in need of the assistance of art.

It is by means of medicinal agents that man interferes, for the purpose of modifying the course of disease; it is by means of medicinal agents that he accelerates or retards its progress; it is, therefore, indispensable for every medical practitioner who desires to be unfettered by the trammels of a slavish empiricism, to ascertain their precise action, in order that he may be in a suitable position to use them when an occasion shall present itself.

But scarcely have we embarked on the consideration of this subject, when a new question presents itself, and which it becomes our duty to solve before proceeding farther. What are medicines; and what is the difference which separates them from aliments and from poisons? On this subject the following definition is usually accepted: medicines serve to re-establish health; aliments serve to support life; poisons destroy it.

But we are evidently, in this respect, under the necessity of confining ourselves to generalities somewhat vague. Every definition which is of too precise a nature, is apt, on that very account, to become inexact. Not to spend too much time on this point, we will merely say that medicines are foreign substances, introduced into the economy there to determine such and such phenomena; it is, therefore, the nature of their action which it is our duty to specify. We see from this, that all medicines are in their nature poisons, the only difference between the two consisting in the extent of their action; for they act only in virtue of their toxic properties, being naturally substances foreign to the economy. Those substances which already exist in the physiological state in the system are null in their effects, being neither useful or otherwise in the re-establishment of health when it is deranged.

We know, however, that chlorine, iron, phosphorus, and many other substances, for example, usually employed as medicines, already exist in the body; but they are never found there in a state similar to that in which they are exhibited as medicines. Phosphorus, in its pure state, is an energetic poison; whereas, phosphates are found in abundance in the normal condition of the body. Thus, therefore, all substances, whether medicinal or toxic, are foreign to the system, either by their nature, or in consequence of the particular form in which they are prescribed.

As the greater part of poisons belong either to the mineral or the vegetable kingdom, it is not surprising that medicine borrows the greater number of the agents it employs from the one or the other of these two. Sometimes these agents are vegetable alkaloids; sometimes they are purgative salts; sometimes they are metallic salts; now these different substances, once introduced into the economy, exercise on it a perfectly well-defined action; the salts of quinine combat the periodicity of diseases; mercurial compounds exercise a specific influence over certain virulent affections; how, then, are we to understand the *modus operandi* of each medicinal agent? For a long time it was believed that the medicinal substance, penetrating to the interior of our organs, addressed itself directly to the morbid principle, with a view to neutralizing it; mercury addressing itself to the syphilitic virus, acids to the principle which generates scurvy, and alkalies to that on which rheumatism depends; an attempt has even been made to treat lead colic by the administration of sulphuric acid to those suffering under that affection, with a view to rendering the morbid agent insoluble, and consequently inert in the body of the tissues. These examples will suffice to enable you to understand what has been attempted to be realized by the aid of medicines.

It is easy to prove, by the simplest possible physiological notions, that this theory is altogether false. It is manifestly impossible to produce the sulphate of lead in the torrent of the circulation, and it is equally impossible to render the blood acid, for the animal dies a long time before the circulating fluid has ceased to be alkaline; in fact, in all animals, whether red or white blooded, this fluid is invariably alkaline, although it becomes acid spontaneously after death, when the sugar in it becomes changed into lactic acid.

The chemical combinations which are usually observed to take place in our laboratories, can not be produced in the blood, but actions of a different kind are readily produced in this fluid; I allude to fermentations. Introduce yeast into the veins, and you will see alcoholic fermentation follow in spite of all the conditions inherent in the vital principle. But fermentations are not, as we know, chemical combinations; they are simply actions. Yeast does not combine with the sugar, it only decomposes it, and herein lies the secret of its poisonous action.

It will be easy to give you a still more striking example of these particular re-actions. We know that amygdaline, a substance of organic origin which is found in the bitter almond, has the property, in presence of certain ferments, of undergoing double decomposition, giving origin to glucose and hydrocyanic acid. Emulsine, the particular ferment which decomposes the amygdaline, exists in the sweet as well as in the bitter almond; but this latter alone contains the principle of amygdaline; hence, the

characteristic difference, which we know so well, between the odor and flavor of these two fruits, which in every other respect resemble each other.

Let us now suppose that we inject into the veins of an animal either amygdaline or emulsine separately, no accident follows; but if we inject these two substances simultaneously into the blood, at two different points, more or less distant, the one from the other, the animal almost immediately dies, as if struck with lightning; the re-action which brings about the decomposition of the amygdaline is effected in the blood contained in the veins; prussic acid has been engendered, and its poisonous effects have not been slow in manifesting themselves. Here, then, is a re-action to which the presence of albumen, of fibrin, and other substances held in solution in the blood, have offered no obstacle—conclusive evidence that, in opposing themselves to the ordinary chemical reactions, the albuminous substances of the blood act simply in virtue of their chemical properties, and do not, in this respect, exercise any vital influence. If it were possible, by introducing into the blood certain ferments for the purpose of determining reactions of an analogous kind, but of a nature not unfavorable to health, the medical art would doubtless have availed itself of this method of action; but it is unfortunately impossible to do so in practice—in fact, ferments are not generally capable of absorption; at least, up to the present time, we do not know of any one that can be taken up by the stomach: it would be necessary to introduce them directly into the blood. The action of emulsine on amygdaline again furnishes a proof of this. Inject some amygdaline into the veins of an animal, while at the same time you introduce emulsine into the stomach, no reaction whatever takes place, for an impassable barrier opposes the passage of the emulsine into the blood. But when the two substances are simultaneously introduced into the stomach, so that they there combine, reaction follows, prussic acid is set at liberty, and the animal dies of poison. This is what takes place ninety-nine times in a hundred to those who are guilty of the imprudence of eating a large quantity of bitter almonds. If, however, half an hour should elapse between the ingestion of emulsine and that of amygdaline into the stomach of a dog, no accident is observed to take place; the ferment digested in the stomach has descended into the intestines, and has lost all its characteristic properties. We do not, up to the present moment, know any ferment susceptible of being absorbed by the digestive tube.

It is, therefore, impossible to explain the action of medicines on purely chemical grounds; an explanation has consequently been sought for by appealing to notions borrowed from the physical sciences. It is thus, for example, that an attempt has been made to explain the action of diuretics. M. Poiseuille has proved

that if distilled water flows with a given rapidity in capillary tubes, we can, without modifying the conditions of temperature or pressure, increase or diminish the rapidity of the flow by the addition of certain substances. If, for example, we add to distilled water a small proportion of hydro-chlorate of ammonia, of nitrate of potash, or of some salt of iodine, the flow becomes accelerated; alcohol, the sulphate of soda, and several chlorides, produce the opposite effect of this. M. Poiseuille thought that the diuretic action of the nitrate of potash could be explained by the increased rapidity in the circulation in the capillaries of the kidneys to which it gives rise; while alcoholic intoxication could, he thought, be explained by the diminished rapidity of the cerebral circulation, and might be dissipated by the salts of ammonia, in virtue of the acceleration they produce in the movement of the blood in the capillaries. In repeating his experiments, whether on individual organs of the body or on living animals, M. Poiseuille was able to satisfy himself of the fact that the capillary circulation was influenced by sundry agents which accelerate or retard the flow of water in glass tubes.

These are not the only examples of this nature that might be cited; for instance, an attempt was made to explain the special action of purgatives, which give rise to a very abundant serous discharge from the surface of the intestines by the simple principle of endosmose; it is true the sulphate of soda, and several other saline purgatives, possess endosmotic properties in a very high degree; therefore, it cannot be denied that in many of these cases the reasoning is somewhat specious; but there are other cases, much more numerous, where this augmentation does not hold good. Purgatives, for instance, in many cases, present but a very feeble endosmotic property, the greater part of the drastic kind being derived from the vegetable kingdom.

There is a third way in which the action of medicines may be understood, and which is more in accordance with physiology. It is admitted that there exists in each organ an elective action, which renders it more apt than the others to be influenced by certain medicinal agents. The different ways by which a substance, introduced into the economy, can escape from it, are, as we have seen, extremely variable. Well, then, medicine acts precisely on that organ by which it is eliminated. Reasoning thus supposes that the medical action is essentially different from the toxic one; such a manner of viewing the question is, however, quite erroneous, as we shall see by and by; but in order to better discuss the theory to which we have just alluded, let us proceed to consider it on scientific grounds. According to this hypothesis, the substances introduced into the economy exercise on the organs which serve for their elimination an action altogether specific, and experimental physiology furnishes us with numerous examples of this.

Ether, we know, when it penetrates, by no matter what passage, into the torrent of the circulation, escapes by the lungs; the characteristic odor of the breath proves this. Well, then, if the quantity of ether introduced into the economy be sufficient to bring about toxic effects, we find at the autopsy traces of an action altogether local, which has been exercised on the lungs.

But, in the case of phosphorus, the fact is still more evident. It is generally by dissolving the substance in oil that we obtain it in a convenient form for injection into the veins; and when the dose is not of sufficient quantity to produce toxic effects immediately, recourse may be had to the following experiment in order to demonstrate that it is eliminated by the lungs: place the animal in a dark room, and you will see flames escaping from the mouth and nostrils; this is the well known result of the phosphorescence of the gases given forth by the lungs. When, after having subjected the animal to this experiment, we kill it, we discover in the lungs lesions of the most serious description; everywhere their tissues are congested, and a peculiar yellow hepatization is remarked at different points.

There are, besides, several other examples of a particular action exercised by different medicinal agents on the organs which they traverse on making their escape from the economy. Almost all the secreting organs are capable of being modified in a particular way, by the action of certain substances found in their secretions. We shall content ourselves by pointing out the influence which is almost immediately exercised by cantharides on the urinary organs. We know, in fact, that such is the sensibility of the organs in this respect, that the simple application of the blister suffices, in certain subjects, to bring about a very well-marked irritation in the entire urinary apparatus. The effects of cantharides are still more marked when the substance is taken into the stomach; it then gives rise to inflammation of the bladder, and to acute nephritis, which are not unfrequently followed by the abundant production of false membranes, and in some cases by accidents of the most serious kind.

But in this entire series of phenomena we can not recognize any other than a purely local action exercised on the particular organs affected. At the time phosphorus and sulphuretted hydrogen traverse the lungs in making their exit from the body, it is found that they have lost nothing of their irritating properties; it is not, therefore, surprising that they develop in the centre of the organ itself, which serves for their elimination, an inflammation more or less intense. The same holds good as regards cantharides; this substance in traversing the urinary apparatus, acts as a blister on the mucous membrane which lines its internal surface, and there determines acute inflammation.—*Med. Times & Gaz.*

Sir BENJAMIN BRODIE *on the Use and Abuse of Tobacco.*

“*Sir* : Having been applied to some time since to join in a petition to the House of Commons, that they would appoint a committee to inquire into the effects produced by the prevailing habit of tobacco smoking, I declined to do so ; first, because it did not appear to me that such a committee would be very competent to discuss a question of this kind ; and, secondly, even if they were so, I did not see that it would be possible for Parliament to follow up by any act of legislation the conclusions at which they might have arrived. Nevertheless, I am ready to admit that the subject is one of no trifling importance, and well worthy the serious consideration of any one who takes an interest in the present and future well-being of society. From these considerations it is that I now venture to address you the following observations.

“The empyreumatic oil of tobacco is produced by distillation of that herb at a temperature above that of boiling water. One or two drops of this oil (according to the size of the animal) placed on the tongue will kill a cat in the course of a few minutes. A certain quantity of the oil must be always circulating in the blood of an habitual smoker, and we can not suppose that the effects of it upon the system can be merely negative. Still, I am not prepared to subscribe to the opinion of those who hold that, under all circumstances, and to however moderate an extent it be practised, the smoking of tobacco is prejudicial. The first effect of it is to soothe and tranquilize the nervous system. It allays the pains of hunger, and relieves the uneasy feelings produced by mental and bodily exhaustion. To the soldier who has passed the night in the trenches before a beleaguered town, with only a distant prospect of breakfast when the morning has arrived ; to the sailor, contending with the elements in a storm ; to the traveller in an uncultivated region, with an insufficient supply of food, the use of a cigar or a tobacco pipe may not only be a grateful indulgence, but really beneficial. But the occasional use of it under such circumstances is a very different matter from the habit of constant smoking which prevails in certain classes of society at the present day.

“The effects of this habit are indeed various, the difference depending on difference of constitution, and difference in the mode of life otherwise. But, from the best observations which I have been able to make on the subject, I am led to believe that there are very few who do not suffer harm from it, to a greater or less extent. The earliest symptoms are manifested in the derangement of the nervous system. A large proportion of habitual smokers are rendered lazy and listless, indisposed to bodily and

incapable of much mental exertion. Others suffer from depression of the spirits, amounting to hypochondriasis, which smoking relieves for a time, though it aggravates afterwards. Occasionally there is a general nervous excitability, which, though very much less in degree, partakes of the nature of the *delirium tremens* of drunkards. I have known many individuals to suffer from severe nervous pains, sometimes in one, sometimes in another part of the body. Almost the worst case of neuralgia that ever came under my observation was that of a gentleman who consulted the late Dr. Bright and myself. The pains were universal and never absent; but during the night they were especially intense, so as almost wholly to prevent sleep. Neither the patient himself nor his medical attendant had any doubts that the disease was to be attributed to his former habit of smoking, on the discontinuance of which he slowly and gradually recovered. An eminent surgeon, who has a great experience in ophthalmic diseases, believes that, in some instances, he has been able to trace blindness from amaurosis to excess in tobacco smoking; the connection of the two being pretty well established in one case by the fact, that, on the practice being left off, the sight of the patient was gradually restored. It would be easy for me to refer to other symptoms indicating deficient power of the nervous system to which smokers are liable; but it is unnecessary for me to do so; and, indeed, there are some which I would rather leave them to imagine for themselves than undertake the description of them myself in writing.

“ But the ill effects of tobacco are not confined to the nervous system. In many instances, there is a loss of the healthy appetite for food, the imperfect state of the digestion being soon rendered manifest by the loss of flesh and the sallow countenance. It is difficult to say what other diseases may not follow the imperfect assimilation of food continued during a long period of time. So many causes are in operation in the human body which may tend in a greater or less degree to the production of organic changes in it, that it is only in some instances we can venture to pronounce as to the precise manner in which a disease that proves mortal has originated. From cases, however, which have fallen under my own observation, and from a consideration of all the circumstances, I can not entertain a doubt that, if we could obtain accurate statistics on the subject, we should find that the value of life in habitual smokers is considerably below the average. Nor is this opinion in any degree contradicted by the fact that there are individuals who in spite of the inhalation of tobacco smoke live to be old, and without any material derangement of the health; analogous exceptions to the general rule being met with in the case of those who have indulged too freely in the use of spirituous and fermented liquors.

“In the early part of the present century tobacco smoking was almost wholly confined to what are commonly called the lower grades of society. It was only every now and then that any one who wished to be considered as a gentleman was addicted to it. But since the war on the Spanish Peninsula, and the consequent substitution of the cigar for the tobacco-pipe, the case has been entirely altered. The greatest smokers at the present time are to be found, not among those who live by their bodily labor, but among those who are more advantageously situated, who have better opportunities of education, and of whom we have a right to expect that they should constitute the most intelligent and thoughtful members of the community. Nor is the practice confined to grown-up men. Boys, even at the best schools, get the habit of smoking, because they think it manly and fashionable to do so; not unfrequently because they have the example set them by their tutors, and partly because there is no friendly voice to warn them as to the special ill consequences to which it may give rise where the process of growth is not yet completed, and the organs are not yet fully developed.

“The foregoing observations relate to the habit of smoking as it exists among us at the present time. But a still graver question remains to be considered. What will be the result if this habit be continued by future generations? It is but too true that the sins of the fathers are visited upon their children and their children’s children. We may here take warning from the fate of the red Indians of America. An intelligent American physician gives the following explanation of the gradual extinction of this remarkable people: One generation of them became addicted to the use of the fire-water. They have a degenerate and comparatively imbecile progeny, who indulge in the same vicious habit with their parents. Their progeny is still more degenerate, and after a very few generations the race ceases altogether. We may also take warning from the history of another nation, who some few centuries ago, while following the banners of Solomon the Magnificent, were the terror of Christendom, but who since then, having become more addicted to tobacco smoking than any of the European nations, are now the lazy and indolent Turks, held in contempt by all civilized communities.

“In thus placing together the consequences of intemperance in the use of alcohol and that in the use of tobacco, I should be sorry to be misunderstood as regarding these two kinds of intemperance to be in an equal degree pernicious and degrading.

“The inveterate tobacco smoker may be stupid and lazy, and the habit to which he is addicted may gradually tend to shorten his life and deteriorate his offspring, but the dram drinker is quarrelsome, mischievous, and often criminal. It is under the influence of gin that the burglar and the murderer become fitted for

the task which they have undertaken. The best thing that can be said for dram-drinking is, that it induces disease, which carries the poor wretch prematurely to the grave, and rids the world of the nuisance. But, unfortunately, in this, as in many other cases, what is wanting in quality is made up in quantity. There are checks on one of these evil habits which there are not on the other. The dram-drinker, or, to use a more general term, the drunkard, is held to be a noxious animal. He is an outcast from all decent society, while there is no such exclusion for the most assiduous smoker.

“The comparison of the effects of tobacco with those of alcohol leads to the consideration of a much wider question than that with which I set out. In all ages of which we have any record, mankind have been in the habit of resorting to the use of certain vegetable productions, not as contributing to nourishment, but on account of their having some peculiar influence as stimulants or sedatives (or in some other way) on the nervous system. Tobacco, alcohol, the Indian hemp, the kava of the South Sea Islanders, the Paraguay tea, coffee, and even tea, belong to this category. A disposition so universal may almost be regarded as an instinct, and there is sufficient reason to believe that, within certain limits, the indulgence of the instinct is useful. But we must not abuse our instincts. This is one of the most important rules which man, as a responsible being, both for his own sake and for that of others, is bound to observe. Even such moderate agents as tea and coffee, taken in excess, are prejudicial. How much more so are tobacco and alcohol, tending, as they do, not only to the degradation of the individual, but that of future generations of our species.

“If tobacco-smokers would limit themselves to the occasional indulgence of their appetite, they would do little harm either to themselves or others; but there is always danger that a sensual habit once begun may be carried to excess, and that danger is never so great as in the case of those who are not compelled by the necessities of their situation to be actively employed. For such persons the prudent course is to abstain from smoking altogether.—*Med. Times & Gaz.*

Anemia from Prolonged Lactation—Softening of the Brain—Death.

We have recently lost a patient whose case was an unusual one, and one of much interest. A woman, aged about thirty years, was admitted for anemia, which was very decided. She was the mother of three children, the youngest about four months old. There was an interval of but sixteen months between the births of the

last two, and she had nursed the elder until within three months of the birth of the younger child, so that for six months gestation and lactation were both carried on. She was very poor, destitute of all suitable provision for her lying-in, and was left very feeble after her confinement. When received at the hospital she was very pallid, complained of a buzzing in her head, or, as she expressed it, "a feeling as if there were a dashing of water in the head." Along the jugulars could be heard very distinctly the *bruit de diable*. There was frequent but feeble action of the heart, but no other symptoms of disease of any kind existed. She was given to full diet, and pills of the carbonate of iron and sulphate of quinine. After a few days she complained of sick stomach, occurring in the morning, and she believed herself to be again pregnant. This sickness was limited to the morning, later in the day she was able to leave her bed, and on the day preceding her death was walking in the garden attached to the hospital. She was suddenly seized with convulsions, which continued for twelve hours, when she died. After death there were found minute tubercles on the pleura and on the mucous membrane of the intestines, in their very incipency, and in a condition in which they did not appear to have produced any irritation of these structures, as was shown during life by the absence of cough or of diarrhoea. There was a remarkable thickening of the entire muscular coat of the small intestine, but no disease of any other structure, excepting that of the brain. This was found *completely softened*, almost diffuent, and of a pale, creamy color. The thalamus opticus and corpus striatum were much softened, but the ramollissement was not limited to these structures, but involved a large portion of each hemisphere. There was no evidence of meningeal inflammation. Careful search was made for tubercles, but none could be detected. Nor could any evidence be found of pre-existing inflammation in the substance of the brain. This was examined carefully, in mass, and subsequently by the microscope. The healthy brain tissue was everywhere broken down, but no compound granular corpuscles, or other evidence of cerebritis, could be discovered. The basilar artery was carefully searched for fibrinous clots, and its structure examined for osseous or other degeneration, none of which existed, and we are compelled to believe that the softening, which could not have been cadaveric, was due to inanition, to a want of proper nutrition, in consequence of the hydræmic condition of the blood, brought about by the prolonged lactation, the gestation, and the destitution under which our patient had suffered.

The periodical remission and exacerbation of symptoms in disease of the brain is of frequent occurrence, but it is not a little remarkable that such a change of structure of the substance of the brain should have existed without loss of motion, or of intellect.

[*Med. & Surg. Reporter.*

On the Physiology of Digestion. By Prof. BUSCH of Bonn.

I had the opportunity of making experiments on digestion upon a woman who had been tossed by a bull, and presented, in consequence of the accident, a fistulous opening communicating with the small intestines. The fistula was so complete that the bowel was divided into two perfectly distinct halves. The upper portion consisted of the stomach, the duodenum, and of a probably minute piece of small intestine; the lower portion was composed of the remaining part of the small intestine, the colon, and rectum. Through the upper half, the food introduced into the stomach, as well as the digestive fluids of the latter organ, the liver and the pancreas, escaped, no part of them finding their way into the lower half. This state of things was therefore favorable to the study of the action of the stomach, of the biliary and pancreatic secretions, and also of the intestinal secretions independently of the liquids just named.

One of the first effects of the pathological state of this woman was a considerable loss of flesh, as observed when she came into the hospital, six weeks after the accident. Her appetite was, however, insatiable, though she was as weak as those animals in whom artificial fistulæ are made. She was also very drowsy and cold; but this temperature was merely objective, for a thermometer introduced into the intestine marked a normal heat. All these symptoms disappeared when the patient recovered a little strength, in consequence of a generous diet.

She used to swallow an enormous quantity of food without feeling satisfied; but by thus eating largely she felt better, though still hungry. When the stomach was empty she felt ill. The woman was so thin that the coils of intestines could be seen through the parietes of the abdomen; and it was observed that their peristaltic movements were as energetic as those of that portion of the intestine situated above the fistula and open to view.

As the intestinal secretion or juice was perfectly pure and unmixed with any chyme, which latter all escaped by the fistula, a good opportunity was offered for studying the nature of that juice. Prof. Busch found the quantity always small, and tried its effects upon protein compounds, starch and cane-sugar, these being the first experiments of the kind ever made. The patient was at the same time fed by the introduction into the lower part of the intestine, through the fistula, of beef-tea, beer, soups with flour, meat, hard-boiled eggs, &c. Soon after these injections were resorted to, she had numerous stools, a circumstance which had not been observed since the accident. The evacuations had a well-marked smell of putrefaction, without any undigested portions of meat or hard-boiled eggs being noticed in them; this being a clear

proof that the intestinal juice acted as a solvent upon the food passing through the canal.

Mr. Busch used to wrap the various substances introduced in a piece of muslin, after having carefully weighed them, in order to observe the action of the intestinal juice. He noticed that it was principally upon starch that this juice exerted an energetic solvent power.

An interesting point was to find out what would become of fatty matter without the assistance of bile or pancreatic juice. According to expectation, fatty substances passed without being absorbed, or at least but a very small portion of them disappeared.

M. Busch also examined the state of the substances which escaped by the upper portion; namely, those which had been subjected to the action of saliva, the gastric juice, bile, and the pancreatic juice. A very extraordinary fact observed was, the rapidity with which the alimentary substances escaped. In from fifteen to thirty minutes after the ingestion of the food by the mouth, it was observed to escape by the fistula; hard-boiled eggs appeared in from twenty to twenty-six and thirty-five minutes; cabbage took from fifteen to nineteen minutes; meat from twenty-two to thirty minutes; potatoes fifteen minutes. When the meal was plentiful, complete digestion required from three to four minutes (?).

The substances which escaped by the upper end of the divided canal seemed at first sight to have undergone but little change; they were, however, considerably softened, and the meat presented both longitudinal and transverse cracks or slits. M. Busch thinks that the fluid in which these substances were suspended contained no longer any saliva.

We add a few of the propositions which the author considers as proved by the experiments above enumerated:

1. The peristaltic movements of the intestines are as vigorous when the bowels are covered by skin as when they are exposed to the air; they withstand the pressure of a column of water two feet high.

2. The intestinal tube has periods of rest and motion.

3. The intestinal juice is secreted in small quantity; its reaction is always alkaline; and it contains, on an average, 5.47 per cent. of solid matter.

4. It decomposes starch and protein compounds.

5. It changes starch into grape sugar.

6. It decomposes protein compounds with the phenomena of putrefaction.

7. It does not change cane-sugar into grape-sugar.

8. Cane-sugar, when wholly absorbed, does not re-appear in the urine.

9. Fat which has not been brought in contact with the bile or

pancreatic juice, is either not absorbed, or, if so, in very small quantities.

10. The first portions of the food introduced into the stomach reach the first third of the small intestine, on an average; in from fifteen to thirty minutes.

11. Cane-sugar held in solution disappears almost entirely at the beginning of the intestinal canal; any such cane-sugar which reaches the small intestine is changed into grape-sugar.

12. Unboiled white-of-egg is absorbed in the stomach, or the first part of the intestine; the portion which goes beyond has not undergone any change.

13. Gum is not changed into sugar; it passes into the intestine without alteration.

14. Gelatine becomes dissolved, and loses the faculty of coagulation.

15. Traces of caseine in solution are found in the intestine after the ingestion of milk.

16. Fat forms an emulsion with the fluids which find their way into the small intestine, when these fluids have an alkaline reaction; the emulsion is incomplete when they are acid.

17. The mixture of juices in the small intestine has a digestive action on the protein compounds.

18. The minimum of the digestive juices, which reach the upper part of the small intestine in twenty-four hours, weighs more than one-seventeenth part of the whole body.—*Archiv. für Path. Heilk.—Maryland & Virginia Med. Jour.*

Treatment of Hæmorrhoids. By M. NELATON.

The Professor, in a recent clinical lecture, makes the following remarks:

“I was sometime since a great partisan of the actual cautery in hæmorrhoids, at least since it could be employed under conditions formerly impossible. In fact, nothing can be more painful than its application. I have seen cauterization employed many times by Dupuytren, who first excised the tumor and then cauterized; but so terrible were the sufferings of the patients, that I could scarcely have made up my mind to have recourse to it, had not the means of preventing pain by chloroform been discovered. I have since then frequently had recourse to cauterization with the best results; and if I do not employ it now it is because we have at our disposition another operative procedure, which is just as good, and which is not painful either during or after its application. I mean *ecrasement lineaire*. It is usually unattended with hemorrhage, and when, as is sometimes the case, there is a

certain amount of bleeding, this may at once be arrested by a powerful hemostatic, the perchloride of iron. The union of these two means, then, constitutes an excellent method for the ablation of hæmorrhoids.

“One word about ligatures. All surgeons at the end of the last century and the beginning of the present were very fearful of applying them, owing to an instance of fatal hemorrhage which occurred after the application of the ligature by J. L. Petit. I believe I am right in affirming, guided by the case related by Amussat, and by those which have occurred in my own practice, that these surgeons entertained the most erroneous notions concerning the results of the ligature employed for hæmorrhoids. It is an excellent operation, by means of which patients may be cured in eight or ten days without any accident; and, indeed, I may place it on the same line with *ecrasement lineaire*. The latter has, however, the indubitable advantage of causing the fall of the tumor within a few minutes, although perhaps it offers somewhat less security against hemorrhage.

“There is one thing to be well borne in mind, viz., that all these operations practised in the vicinity of the anus, however simple they may be in appearance, may terminate in a fatal manner. This is a powerful motive for insisting as long as possible on palliative treatment, only performing an operation as a last resort. Quite recently, one of our leading surgeons applied a small portion of Vienna caustic to a hæmorrhoidal tumor, and the patient was dead next day; while in another case, an incision made into a fistula scarcely a centimetre in length, was followed in a few days by fatal purulent infection. I was myself consulted some years since by a man who having acquired great wealth, complained bitterly of not being able to enjoy it in consequence of a hæmorrhoidal tumor. I advised him to bear with it, but some time after abundant hemorrhages having come on, he entreated its removal. He manifested all the signs of complete anæmia. He did not suffer during the operation, but scarcely had he recovered consciousness when he complained exceedingly. I appeased the pain and all seemed doing well, when on the sixteenth day violent shivering ushered in purulent infection and he died. The conclusion to be drawn from all this is, that you should never operate except when you can not possibly avoid doing so, since when you least suspect it you may meet with sinister events similar to those just adverted to.

“One more word with respect to *ecrasement lineaire*. This operation has during some time been frequently resorted to; and it is for this description of tumor it is perhaps best adapted. But I ought to inform you that in most cases the operation is badly executed. For a short time after its performance the patients are delighted, and the surgeon believes that he has attained a splen-

did result; but in the course of a few months the cicatricial tissue contracts, and the patients suffer from an anal stricture. During about a twelve-month I have had a great number of patients, who have come to me in order to undergo an operation for the relief of this unfortunate consequence of removal of hæmorrhoidal tumors—the stricture sometimes scarcely admitting the passage of a quill. It has arisen because not only the mucous projection which alone constitutes the disease has been removed, but also a more or less considerable portion of the skin of the orifice of the anus.”—*Brit. & For. Med. Chir. Review*,—from *Gazette des Hopiteaux*.—*Ibid.*

PART IV.

EDITORIAL.

VOLUME THE NINETEENTH.

We are growing old in the profession, as well as old in years, but we will endeavor not to become garrulous. The fact is, we have but little to say on this occasion. Having heretofore promised more than we have been able to perform, we are very naturally averse to committing ourselves further in this way. We mean, however, to do the best we can, to render the forthcoming volume of our Journal both interesting and profitable to our readers. We shall use our best exertions also to extend our circulation, believing that by so doing we will benefit the profession as well as ourselves. In this we earnestly solicit the aid and co-operation of our friends.

A medical journal is as essential to the practitioner of medicine, as a newspaper is to one engaged in the ordinary pursuits of life; and yet, as strange as it may seem, we feel persuaded that there are multitudes of physicians who do not take any medical periodical whatever. Such persons voluntarily cut themselves off from all sources of improvement, and are as ignorant of what is going on in the world of medicine, as they are of what is transpiring in the empire of Japan. If it were in our power to reach all such, we would urge them by all means to subscribe for the *St. Louis Medical & Surgical Journal*, without delay; but as we can not do this, we must beg each one of our readers, whenever meets with a brother practitioner who is not already in the

regular receipt of a medical journal, to act as our agent, and present our cause, which is also his cause. This is one way, and a very efficient way, to elevate the standard of professional attainments, and to promote the cause of sound medical learning.

We take this occasion to repeat, that we will be glad to receive short communications on practical subjects connected with medicine, from any and all of our readers, and will take pleasure in inserting them in our pages.

(In the ST. LOUIS MEDICAL COLLEGE.)

The class in attendance on the St. Louis Medical College during the present session is larger than it has ever before been. (The number is over one hundred and forty) We may add, also, that they are as intelligent and studious a set of young gentlemen as we ever saw assembled in any medical institution. X

EFFECT OF POLITICAL EVENTS ON OUR EXCHANGES.

What effect the strange and startling political events which are now transpiring in this country will have on our exchanges remains to be seen. If there is to be a disruption of our government, as at present threatened—and this once united, happy, and prosperous country is to be rent asunder, and divided into separate and distinct nations, there may be a temporary interruption in the receipt of some of our exchanges until new postal arrangements can be effected. God grant that this dire event may never take place! We only speak in reference to possibilities, nay, we are constrained to say probabilities. It may be, yes, it may even be, that what are now domestic, will in a short time become foreign exchanges. Sad thought, dark and gloomy prospect! What then will become of our National Medical Association? Rather what will become of our beloved country itself? The poet tells us in reference to other lands, that

“Mountains interposed make enemies of nations,
Which had else, like kindred drops, been mingled into one;”

but here we may behold imaginary lines making enemies of those whom nature and reason have designed to be one people. But we will not dwell on this painful subject, but rather trust that a kind Providence will yet avert the dangers which now threaten to divide our happy land asunder.

MEDICAL MISCELLANY.

Digitalis in Delirium Tremens.—The Med. & Surg. Reporter says: "The article recently copied from an English journal on the administration of very large doses of the tincture of digitalis in delirium tremens has attracted much attention. The English official tincture is of the same strength as that of the U. S. Pharmacopœia. A practitioner of this city has informed us that he has frequently prescribed the tincture in drachm doses during acute inflammations, but the use of the article in half ounce doses in conditions in which the arterial sedative effect is not apparently indicated seems extremely hazardous. Yet it is claimed that the effects of digitalis in inflammatory affections and in delirium tremens are exactly contrary. In inflammatory disease it subdues and regulates the pulse, whilst in delirium the pulse is by it increased in force and fulness."

Missouri State Lunatic Asylum.—We regret to learn that Dr. T. R. Smith, who has filled the important situation of Superintendent and Physician to our State Lunatic Asylum since its organization, has been compelled on account of ill health to resign. For near ten years past Dr. Smith has discharged the duties of chief executive officer of this institution with intelligence and fidelity, and under his direction it has grown to be one of the best institutions in the country—a credit to him and to the State. We therefore regret the necessity which has compelled him to retire.

A Professional way of Settling a Duel.—A Surgeon Dentist of our acquaintance, of undoubted courage, who commanded a company of soldiers in a recent military expedition, in some way or other, incurred the displeasure of one of his men. On the return of the expedition, when all military distinctions were at an end, and the parties restored to a civic level, the soldier who imagined himself aggrieved challenged his commander to mortal combat. The dentist after reading the war-like document authorized the friend of the injured party to say to him, that if he would *withdraw his challenge he (the dentist) would draw his teeth for him the rest of his life for nothing*. The proposition was accepted and here the matter ended.

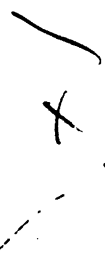
Nashville Medical Recorder.—Number 1, vol. iii. (new series) of this Journal for November, has reached us. It is to be issued monthly, and is edited by Professors Abernathy, Maddin & Callender, of the Shelby Medical College.

Secession of Medical Students.—The New York Medical Colleges—or at least some of them, seem to have been in as much trouble this winter as their neighbors in Philadelphia were last winter, growing out of the restlessness and dissatisfaction on the part of the southern students. In the early part of the session there was a threatened stampede, which, however, did not take place; now, however, we learn from the Boston Journal, that no less than fifty-seven of the students of the New York University have decided to return at once to their southern homes. According to the Medical Times, the cause of grievance is not altogether a political one, but grows out of an alleged indignity offered to Dr. Aylette, the well known preceptor of a large class of southern students, by the authorities of the college. This may have had some influence, though it is quite evident that the *sons et origo* of the difficulty is to be found in political agitation. It would be far better for southern and south-western students to remain at home, and attend their own institutions, rather than to break in upon their studies by these annual disruptions.

Glycerin and Camphor in suppression of the secretion of Milk.—Prof. Harris of Savannah states in the journal of that city, that having failed in arresting lactation by the use of belladonna, he has resorted to glycerin and camphor with very decided success. He uses a saturated solution of camphor in glycerin applied by gentle friction over the whole breast, together with a flannel cloth wet with the same and laid over the gland—the remedy to be persisted in for several days. He also recommends the same, with the addition of tannin, in cases of sore nipples. In our hands the belladonna has usually acted promptly and efficiently in such cases, though it is well to have two strings to our bow, and we therefore like the suggestion.

Death of Prof. Harris.—Prof. Chapin A. Harris, formerly of the American Dental College at Baltimore, and author of several well known works on Dental Surgery, died in Baltimore on the 29th of Sept. last, aged fifty years. In his death the dental profession has lost one of its ablest members.

Chloroform in Itch.—The Druggist's Circular says: "Prof. Bock has found the external application of chloroform useful in some cases of itch. This substance appears to kill the insect, and, moreover, by producing anæsthesia, it relieves the irritability of the skin. M. Bock has never observed any inconvenience to arise from the use of chloroform, and the sensation of burning, which it produces for a short time, is quite trifling in comparison with the intolerable itching caused by the disease."



Prosecution of a Bone-Setter.—The Med. & Surg. Reporter says: "A boy at Birkenhead, England, was injured, and a bone-setter was called in, who said that the thigh-bone was broken, and accordingly professed to set it. For this he received his fee. The boy became rapidly worse and died in a few days. A *post-mortem* examination showed that the bone had never been broken. On account of mal-treatment of the case, the coroner's jury rendered a verdict of 'manslaughter' against the quack."

Cæsarean Section.—The American Medical Monthly says: "Prof. B. F. Barker recently performed the Cæsarean operation at Bellevue Hospital, on account of a contracted pelvis, the anterior-posterior diameter of the superior strait being only two inches, the cavity of the sacrum filled with a bony tumor. The child was removed alive, and is now living. It weighed nine pounds. The mother died the fifth day after the operation."

Ventilation of Rooms at Night.—The following sensible remark is from Florence Nightengale, which we quote from the Southern Med. & Surg. Journal: "An extraordinary fallacy is the dread of night air. What air can we breathe at night but night air? The choice is between pure night air from without and foul night air from within. Most people prefer the latter. An unaccountable choice. What will they say if it is proved to be true, that fully one half of all the diseases we suffer from, is occasioned by people sleeping with their windows shut? An open window most nights in the year can never hurt any one. In great cities night air is often the best and purest air to be had in the twenty-four hours. I could better understand in town shutting the windows during the day than during the night, for the sake of the sick. The absence of smoke, the quiet, all tend to making night the best time for airing patients. One of our highest medical authorities on consumption and climate has told me that the air of London is never so good as after ten o'clock at night."

Stramonium in Neuralgia.—From the same source we get the following: "In the Chicago Medical Examiner, for October, Dr. A. Young has an article upon this subject. The author says of neuralgia: 'I have to meet with the first instance that has failed to yield to stramonium.' 'The mode in which I have given it in the intermittent form, is gr. i. of Tilden's ext. stramon. fol., every two or three hours during the intermission, until the system is decidedly affected, indicated by dilated pupil, disordered vision, vertigo, and often hallucinations, or mild delirium. When given to this extent, it will generally be found unnecessary to repeat it. Anything less than this will be of comparatively little value.'"

Salts in the treatment of Dysentery.—A writer in the Boston Med. & Surg. Journal says: "Any one disposed to test the value of *salts* in the treatment of dysentery, as recommended by Dr. Jackson in your last issue, may find in the Dispensatories a formula for preparing the article, which has long been a popular one and has the advantage of being required in a small amount at once. The formula is: Glauber's salts, \bar{z} i.; water, \bar{z} iij.; nitric acid, muriatic acid, $\bar{a}\bar{a}$ 3 i.; alum, \ominus i. Dose, a large table-spoonful.

I have used it for some years, both in dysentery and chronic diarrhœa, and its use has been followed by recovery sooner than I have found it to be after any other prescription.

When the wholesale throwing overboard of drugs shall take place, our humane feelings will be comforted by the reflection that this medicine, at least, will not be 'worse for the fishes,' as sea-water already contains most of its ingredients."

The Pocket Anatomist.—We have received a copy of this little volume, which purports to be a complete description of the anatomy of the human body, for the use of students preparing for their examination. If such be the fact, the author has certainly succeeded in reducing anatomy to a nut shell.

Hospital for Negroes.—A hospital exclusively for the treatment of diseases of the negro has been established in Charleston, S. C., which is to be open for clinical instruction, thus affording southern students an opportunity of becoming practically acquainted with the diseases of this large and important class of patients. This is a good move.

Baltimore Journal of Medicine—a new enterprise.—Dr. Edward Warren, Prof. of Materia Medica in the University of Maryland, and formerly editor of the North Carolina Medical Journal, proposes to commence the new year by the publication of a bi-monthly journal of not less than one hundred pages, in the city of Baltimore, at three dollars a year. Baltimore is the only large city in the United States which has not its medical organ—we are not surprised therefore at the receipt of the prospectus. Dr. Warren has youth, energy and talent, together with some experience in the life editorial—he is therefore well qualified for the undertaking—at all events we are willing to underwrite for him, and in advance cheerfully extend to him the right hand of fellowship.

Use of the Sponge Tent in Sterility.—M. Pleiffer mentions, in *L'Union Médicale*, that Prof. Stoltz of Strasbourg succeeded in removing sterility in the case of a healthy childless couple, who had been married four years. On examination, the cervix was found extremely narrow and very rigid. The use of tents of prepared sponge for a month or six weeks, with an occasional warm bath of an hour's duration, was advised; and the lady became pregnant two months after beginning the treatment. She was eventually delivered of a healthy boy. This procedure seems to M. Pleiffer preferable to the division of the cervix, as advised by Dr. Simpson, especially where the patients object to the use of the knife.

Patent for Ether-Inhalation refused.—We are glad to learn from our Boston cotemporary, that the Commissioner of Patents at Washington has refused the application of W. T. G. Morton for a further extension of a patent for the exclusive use of ether in surgical operations. This is as it should be. Surgeons and others can now use this valuable anæsthetic without the fear of being annoyed by a suit for infringing on patented rights—which has even been attempted in some cases.

Curious Death.—The following is from the *Med. & Surg. Reporter*: "Two men in France took shelter in a barn for the night. In the morning one of them was found dead, with severe injury to the head. The comrade was at once arrested, and told some 'cock and bull' story about the terrible storm of the night in question, and attributed his companion's death to the effect of a thunderbolt. He was not credited, and was in a fair way to be executed for the supposed crime. A scientific gentleman, hearing of the circumstance, examined the place, and found a hole in the roof of the barn, and an ærolite close to the spot where the deceased had slept on the night in question. The innocence of the accused was at once considered as established, and he was released."

Re-appointments.—We have elsewhere announced the resignation of Dr. T. R. H. Smith as Superintendent of the Missouri State Lunatic Asylum, situated at Fulton, on account of ill health. We are now pleased to state that Dr. Smith's health has since that time materially improved, and that the Board of Managers have re-appointed him to his former position. The Board also elected Dr. James P. McElhiny of St. Charles to the post of Assistant Physician. Both good appointments, and will no doubt give general satisfaction.

THE ST. LOUIS
MEDICAL AND SURGICAL JOURNAL.

VOL. XIX.

MARCH, 1861.

No. 2.

PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

A Case of Blighted Fœtus carried to full Term. By A.
W. REESE, M.D., of Saline Co., Mo.

Mrs. Maria R——, ætat twenty-one years, large, inclining to *enbonpoint*, fair complexion, dark hair and eyes, about the middle of the month of March, 1860, requested me to examine and prescribe for her case. She presented the following symptoms, headache, thirst, febrile exacerbation; pulse 110; tongue slightly furred and red at tip and edges; the cutaneous surface dry and hot. She was the subject of deep-seated pelvic pains, with a sense of weight and bearing down in that region. She was also disturbed by an acute pain occurring regularly each night, and generally towards morning, about the middle of the sacrum and extending to the hypogastrium. This was succeeded by an immediate and urgent desire to evacuate the bowels: after a discharge from the bowels, more or less copious, the pain was removed altogether, or in a great measure relieved. This had occurred for many nights in succession. She fancied herself the subject of *prolapsus uteri*, and gave me the following history of her case.

Sometime during the preceding fall she had reason to suppose herself *enceinte*. The usual phenomena of pregnancy appeared in her person. Arrest of the catamenial flow; morning nausea and vomiting; areolar discoloration; capricious and unnatural appetite; strange and uneasy pelvic sensations; increase of size; and, to crown all, about the latter part of the third month—according to her computation—the movements of the *fœtus in utero* were distinctly felt. All these things led her confidently to suppose that she was pregnant. Subsequently, however, in the course of a few weeks, all foetal motion subsided. This was succeeded by an arrest of development in her person, and there was a decided sanguineous discharge.

These circumstances—but more particularly the appearance of “the show”—which she supposed to be the return of the menstrual flow, led her to think that she had been mistaken as to her previous condition. I requested permission to make an examination *per vaginam*. I found the os uteri high up—neither dilated nor *dilatable*—and in its normal position. There was but little undue heat or tenderness, either of the vaginal canal or uterine orifice. On performing the *ballotement*, I discovered that she was *pregnant*. I stated to her my opinion that the uterus contained a *dead fœtus*, which might be thrown off at any time, or possibly might be carried to the full term of utero-gestation.

I placed her upon iron, a pill of the proto-carbonate, “Vallett’s mass,” three times daily. She was to take each night at bedtime a powder of the sulph. morphia. The bowels were to be kept in a soluble condition by mild laxatives, as pulvis rhei and carb. magnesia, sodæ, phosph., &c., &c., and during the febrile excitement she was to take the effervescing draught of the U. S. Dispensatory. She was also to take gentle exercise in the open air to the extent of her strength in pleasant weather, avoiding all disturbing influences, mental, moral, and physical, as likely to exert an unfavorable influence upon her case.

Time passed on with variable states of health in this patient. Sometimes there was a great deal of suffering, and again, she would enjoy comparative comfort and ease. Much of the time, however, she was troubled with uneasy pelvic sensations, amounting sometimes to positive pain—with disturbance of the digestive

organs, extreme nausea and vomiting—and diarrhoea alternating with constipation; she lost flesh, but suffered no extreme emaciation.

On the night of the 14th July, 1860, at 11 o'clock, I was summoned to attend this lady in her confinement. There was nothing strange or unusual in the labor itself. The "pains" came on regularly, and the gradual dilatation of the os uteri revealed to the touch the "membranous pouch" protruding through the orifice. Through these, I discovered presenting the inferior extremities of a small fœtus.

In two hours and thirty minutes the labor was safely concluded—a fœtus, with the placenta and membranes entire, was expelled—there was not the slightest hemorrhage, and the womb contracted well. On inspection, the products of the labor proved to be a small fœtus of about the third month. It was in a fine state of preservation, but presented a strange unusual appearance. It was shrunken, shrivelled—somewhat corrugated—and looked as if it had been soaked in "tan ooze" for a long time. The membranes were dense and tough, and on tearing them open they were found to contain a small quantity of dirty-colored, inodorous liquor amnii. A portion of the uterine surface of the placenta appeared to have been detached for some length of time.

The lady made a fine recovery, and has since enjoyed excellent health. I omitted to mention that this was her *second labor*. I attended her, eighteen months previously, in her first confinement. The labor was a natural one, but was slow and painful; it was complicated in the third stage by retention of the placenta, from hour-glass contraction of the womb. I had to remove the placenta by introducing my hand into the lower compartment of the uterus, dilating the stricture; gaining access to the upper, and allowing the contractions of the uterus, excited by the presence of the hand, to expel placenta and all together. This was effected without hemorrhage or distress to the patient, as she was profoundly under the influence of chloroform during the operation.

Some interesting, and perhaps practical, deductions may be derived from observation of such cases as these. What is their relative frequency and importance in the great field of obstetric science? and what is the office of the accoucheur in their conduct?

During a long course of obstetric practice, in which almost

every form and variety of abortion and miscarriage have come under my professional care, but few cases of this precise description have been met. Yet that they are not infrequent I am aware. The "books" contain occasional allusions to such. Dr. Miller of Louisville, Ky., in his late admirable work on "Obstetrics," records such facts; and in the course of my general obstetrical reading I have met with recorded instances of great interest, both in a scientific and novel point of view.

My friend, Dr. Thomas of St. Thomas, Mo., gave me the details of two interesting cases of this sort that came under his professional superintendence some time since. In one of these patients the general health was unimpaired; the other suffered great inconvenience and distress during the period of gestation. A still more curious and instructive case was related to me by my friend, Dr. Wm. M. Belt of Independence, Mo., and by him reported in the Amer. Jour. of the Med. Sciences for 1855.

That the *diagnosis* in such cases is often obscure, and sometimes extremely difficult, may be well imagined; and the importance of arriving at correct views and conclusions can not be too highly estimated, both as to the reputation of the medical gentleman who has charge of the case, and the comfort and safety of the patient confided to his care.

Among the dangers and accidents to which parturient women are most obnoxious, abortion and its *confrere*, miscarriage, stand most prominent. *Abortion* is, in fact, the great evil to which pregnant females are most liable; and it is a result to be dreaded and avoided by all possible means, therapeutical and prophylactic. It is a termination of conception and impregnation that nature *abhors*, and she therefore throws about the patient every safeguard and every means to prevent a calamity so dire. Miscarriage, though perhaps less disastrous in its constitutional effects, is still an evil of too great magnitude, both in its immediate and ultimate results, not to be deprecated and most carefully avoided by all the means in our power. This, the voice of nature, and of reason too, alike proclaim! Hence, though the fœtus itself may *perish*, the vital attachments of the placenta remain, and the uterus, loth to deliver up the precious fruit entrusted to its care, guards its portals with a jealous care; and the fœtus shut up, as in a *mare clausum*, from the outer world,

and floating in a liquor amnii, that in the chemistry of Nature's wondrous crucible becomes imbued, perhaps, with *anti-septic* powers, is borne in triumph to the full term, and delivered in harmony with Nature's matchless plan!

Now what shall the man of physic do when such cases present themselves for treatment at his hands? Shall he enact the part merely of an idle spectator of the scene, or shall he bring to bear the resources of his art? *In the main*, I opine, his treatment can but be *palliative* at the best. The patient he must keep "under strictest ward and watch." He must never lose sight, for a moment, of the critical nature of the case. Uterine irritation, pain, and "nights devoid of ease," must be subdued. Many remedies there are "whose praises have been sung;" but *opium* is "*the king*," whose magic sceptre soothes the weary, aching frame, and scatters care away! It is "the sweet, oblivious antidote" that brings balmy sleep and peaceful dreams. It is the "kind nepenthe" which, like the charmed chalice of the gods, sparkling with its lethean draught, wafts the weary sufferer from his couch of pain and care to scenes of blissful ease! Is this the poet's dream, or is it the experience of a thousand years?

Give your patient, at bed-time each night, a morphine powder, or an injection of starch and laudanum! If she be of a sanguineo-nervous temperament—and, withal, if she be inclined to plethora—deplete moderately: if she be *ænemic*, give her iron, "Vallett's mass," the ferri citras, the iron by hydrogen—or, what is as good as anything else, the old ferri sulph. made into pills with the soft ext. gentian. If there be febrile symptoms, thirst, hot skin, &c., give the effervescing draught; or, what is as good, a solution of ant. tart. and sulph. morphia, every two or three hours. These, with moderate exercise in the open air, general quietude of body and mind, simple and nutritious diet, will afford the best means in our power for the safe conduct of the patient along her perilous path.

RAVAGES OF DIPHTHERIA.

It is estimated that at least *ten thousand* persons—mostly the young—have fallen victims to diphtheria since its first appearance in the United States.

ARTICLE II.

An Extraordinary Case.—A Child Born covered with Sulphur. By A. A. RUCKER, M.D., of Miami, Mo.

[The following interesting case was communicated by the author, in a letter to Prof. Frazer of this city, and by him kindly furnished for publication.—EDS.]

On the morning of Nov. 13th, 1860, I was called to see Mrs. H——, whom I found in labor; the second stage of which was about completed; suffice it to say, the labor was a natural one, and went on well to its completion; at which time a strong odor of sulphur came in contact with my olfactories. I could not imagine at first from whence it emanated, but, on looking at the child, which for a moment seemed lifeless, I saw its color much resembled that of sulphur; but not thinking of sulphur from such a quarter, although the odor was strong, I thought for a moment of that appearance which syphilis sometimes gives to still-born infants. But here, from every circumstance, I dared not for a moment presume this monstrous disease to have any thing to do in the matter. But on placing my hand upon the cardiac region I found the heart pulsating, and I went immediately to work, to resuscitate my little acquaintance; which soon being done, I turned about to investigate why this odor and color, which at this time I began to suspect came from the child and mother. I enquired of the latter if she had in any manner been using sulphur about her person; she stated she had only been using it internally, and for several weeks, in doses near a teaspoonful. Upon a minute examination I found the infant thoroughly covered, as it were, with an unguent of sulphur. If you had taken sulph. oint. with sulphur largely predominating and well smeared the infant with it, you would have no better evidence as far as appearance and odor would go. Unfortunately, I did not preserve any of this matter, and am therefore dependent upon sight and smell—evidences, I know, which will not always do in medicine or its co-branches.

But if I ever saw or smelled sulphur, I did in this case. For fear that I might be in some error about this matter, I again, in some ten days, visited Mrs. H—— for the purpose of eliciting if

possible, more and stronger evidence for or against the sulphur position. Upon conversing with the lady, she informed me that upon the second day, and third day, she attempted to wash and clean the infant, as it had been imperfectly done by the nurse, and, to use her own expression, "why, Doctor, I found sulphur between its fingers and toes." After every possible examination I could make, save the omission referred to, I am compelled to say this infant was literally covered with sulph. ointment, prepared in a sort of nature's laboratory. Now, if this was sulphur, and I have not the least doubt, it opens up some very interesting questions concerning the foetal existence in utero. I have stated hurriedly and very unmethodically the above facts. If you can give me any light or information concerning the matter, it will be highly appreciated.

Should you deem this case worthy of publication, you will please use it.

ARTICLE III.

*Foreign Correspondence.—Letter from Dr. F. COOLEY, of
Lexington, Missouri.*

No. 7 Falcon St., LONDON.

Prof. MCPHEETERS.

My Dear Sir:—Since writing you I have witnessed a number of highly important surgical operations, some of which I shall now talk about. Before doing so however, I wish to say a few words about the great surgeon of London, Mr. Fergusson. He is slightly over six feet in stature; large and well proportioned, and has a pleasing expression of countenance, but is quite bald—he always enters the operating theatre with a smile on his face; he is between fifty-five and sixty years of age, though looks rather young for one of that age; he is not a fluent speaker, having a slight impediment in his speech, though he articulates so as to be distinctly understood. He operates with great ease to himself, and without the least trembling of the hand. He proceeds with his operations, apparently, with perfect confidence of his ability to perform them successfully, and does not manifest the slightest

embarrassment, or the least disposition to hurry through with them.

To sum the whole matter up in one short sentence, he seems to possess all the necessary qualifications of a good operator. I have had the pleasure of witnessing the resection of the knee, and excision or resection of the elbow, by him. The patient on whom resection of the knee was had recourse to, was of a strumous diathesis, judging from her general appearance. She had chronic disease of the knee, which had disorganized the joint, rendering amputation or resection absolutely necessary; the latter Mr. Fergusson chose. He is quite an advocate for resection. If I am not mistaken, resection was resorted to more frequently some years ago in our country than at the present; and I presume the reason for partially abandoning the operation was the want of success. But as Mr. Fergusson has justly remarked in his lectures, the surgeon should give his patient every chance which surgery can afford to save a limb; and if the limb can be saved by the operation of resection, though an ankylosed joint, and a shortened limb, should be the result, these are far preferable to no limb at all. In the case referred to, he thought it much better to resect the joint, as the foot and leg were sound, rather than to amputate the limb; believing that the chances for recovery are in favor of resection over that of amputation. He remarked, that he had often regretted, on former occasions, especially in his younger days, having resorted to amputation, when he might have saved the limb, and perhaps the life of the patient, by a resort to resection. But now, after years of experience, and after having more maturely studied the subject, and being enabled to act more independently, he more frequently resorts to resection than to amputation, and sees no cause to regret the course he has pursued. He further remarked that there is a close analogy between the knee and the elbow; yet surgeons will hoot at the idea of resection of the knee, because, say they, it interferes with the development of the limb; I would ask, said he, if there is any development of the limb after amputation! Those surgeons say resection of the elbow may be performed with some hopes of success, but not so with resection of the knee. Resection of the knee is a serious operation, and is sometimes followed by death; and so is amputation a serious operation, and

frequently followed by death also. I will put in contrast a case of resection of the knee at the London Hospital, and the result, with Mr. Fergusson's teaching. The case I have reference to is a little girl some twelve years of age, admitted under Mr. Curling's care. The left knee was inflamed, swollen, and painful—several sinuses communicated with the joint—two or three over the patella, and one on the outer side of the thigh. The patient was put under the influence of chloroform, and resection performed. The cartilages were destroyed and the bones extensively diseased. About one and a half inches of the femur, and about three quarters of an inch of the tibia, were removed. The patella was also removed. For several weeks the case seemed to be progressing favorably; the child got so she could go about; but finally she relapsed, the sinuses reopened, and there was no bony union, the knee was intensely painful, and the girl's health declined. Amputation was decided upon, and accordingly performed; and the result is the girl is now well, and has a sound stump. Mr. Fergusson went so far as to say, that a surgeon would be laughed at in these enlightened days were he to amputate the leg or arm for disease of those joints. Unless the disease was of the most serious character, and the condition of the parts would show at once the absolute necessity of an amputation. This is all well enough, provided you are able to diagnose these *serious* cases. Surgeons are sometimes mistaken in their diagnosis, as was the case with Mr. Curling, and I trow it may be the case with Mr. Fergusson himself. I shall keep my eye on his cases of resection, especially that of the girl whose knee was excised. It would be a fortunate thing for suffering humanity if diseases of the joints could be remedied by resection, thereby saving the member; for it is much better, as Mr. Fergusson justly remarked, to have a natural limb, though it be ankylosed and shortened, than to have no limb at all, or to have an artificial one; but, unfortunately for surgery, resection has not always succeeded in bringing about these good results; for, even after resection of the joint, amputation of the limb in a number of instances has finally to be resorted to in order to save the life of the unfortunate individual. If it were possible for resection to succeed in every instance it would be a mighty triumph for surgery; but alas! such is not the case.

The London medical gentlemen are making considerable ado over an instrument recently invented by Prof. Czermak of Berlin, called by that distinguished surgeon the "Laryngoscope," an instrument used for the purpose of diagnosing diseases of the larynx. It is said the value of this instrument in the diagnosis of affections of the larynx has been recognized all over the continent of Europe, and its employment has become somewhat general in a number of the public hospitals. The aid of the laryngoscope in diagnosing diseases of the throat is therefore of the greatest importance. The instrument consists of a reflector and mirrors. The reflector can be placed at any angle you may wish, thereby enabling you to examine any and every part of the larynx with perfect ease. There is one difficulty in the way in examining patients with the laryngoscope, and that is, the irritability or sensitiveness of the parts against which the instrument is brought, though I believe the only portion touched in the examination is the uvula.

PARIS, December 24th, 1860.

Prof. MCPHEETERS.

My Dear Sir: The manner in which the hospitals are arranged here seems to be good; the wards and the beds are clean, and the patients appear comfortable, as much so at least as hospital patients can be. It requires an immense amount of labor to keep so large an establishment in a cleanly condition. The hospital I visited this morning contains some six hundred or more beds. "The Hospital Lariboisière," where we met with M. Chassaignac, who is rather a good humored man, and, by the way, a great talker. It would appear from the display to-day, that he is much wedded to the "Ecraseur" and the seton. He performed some half dozen surgical operations, and all with the "Ecraseur," and with the trocar and canula. He operated for fistula in ano with the "Ecraseur;" also removed a tumor with the same instrument. For hydrocele, he operated with a large trocar and canula, followed by a seton: for abscess and sinus of the elbow implicating the olecranon, he operated with the trocar.

To give exit to matter in a large abscess on the anterior aspect of the thigh, he used the trocar and seton. He has operated so often with the "Ecraseur", that he has become quite familiar with the instrument. In mammary abscess, he operates with his large trocar and canula, followed by the seton. In almost all surgical cases where an American surgeon would employ the knife, M. Chassaignac either uses the "Ecraseur" or the large trocar and seton. From the "Hôpital Lariboisière" I went to the eye infirmary, conducted by M. Desmarres, and where I had the pleasure of seeing over one hundred cases of diseases of the eye; and also witnessed several operations. For granular conjunctivitis, he uses almost altogether the sulphate of copper applied in the solid form. Internally, he gives little or no medicine. This is a private hospital established by M. Desmarres, and as a matter of course he has the entire management of it. The time he devotes to his patients at the hospital is gratuitous. Wherever we find a hospital of this description, it is filled with patients, both *in* and *out*. Jobert is at the old Hôtel Dieu, one of the largest establishments in Paris. The wards are full, as is the case in all the hospitals I have visited. Jobert is much of a gentleman; he is very courteous to Americans, much more so than M. Malgaigne. In the wards of the Hôtel Dieu, we saw quite a number of interesting cases, such as aneurism of the carotid, &c.

The old veteran, M. Velpeau, is still going the rounds in the wards of the "Hôpital de la Charité," and is yet a splendid operator notwithstanding his age; he does not look as old as he really is. His walk is that of a man twenty-five or thirty years of age. He has a pleasing countenance, and seems ready at all times to exchange a pleasant word with you. There is one peculiarity about Velpeau I must not forget to mention, which is this: he is now wearing the same *little red cap* he wore twelve years ago, and how much longer anterior to that time I am not able to say. This little red cap is worn only in the hospital during his visits, and I suppose he thinks he has a perfect right to wear it until it wears out, should it require twice twelve years to do this. Notwithstanding his little red cap, M. Velpeau is one of the greatest, if not the greatest, surgeons in Paris. In this hospital we also saw M. Malgaigne, who is a very different sort of a man from M. Velpeau. Velpeau, as I have already said, is kind and affable to

the Americans, whereas Malgaigne, so I am told, hates our countrymen. Why he dislikes us, I can not tell, unless it is from the fact that he is jealous of Velpeau, and because of M. Velpeau's kindness towards the Americans. I am told he dislikes every thing that is not of Paris. Malgaigne is, nevertheless, a man of high attainments in the profession, and ranks with the first surgeons in Paris.

From what I can learn, the French surgeons do not use as much medicine as the English do, nor as much as the Americans. If we would all use less than we do it would probably be better for our patients; for, after all, nature is the great physician, and our aim should be not to force her, but rather let nature have her perfect work. The material they have to operate on here is somewhat different from what we have in our country. The mass, or a great majority of the patients admitted into these hospitals are of the lower class, and consequently, badly fed, and frequently badly clothed; and should a surgeon lose a case after an operation, it does not amount to much with them, or to the community; at least they look upon the matter in this light, and this leads them to experiment more than in any other country. I am sure Americans would not submit to what the French are compelled to. It is our business, however, to take advantage of all we can gather from Paris, and from Parisian practice.

There is evidently a jealousy existing between the Parisian and the London surgeons. Neither will practice what the other does, if they are aware of it. In one respect, however, they resemble each other, and that is, neither of them will go from home to acquire medical or surgical knowledge.

Respectfully yours, F. COOLEY.

ARTICLE IV.

[For the St. Louis Medical Journal]

LETTER FROM DR. S. POLLAK.

PARIS, Dec. 16, 1860.

AN ITINERANCY TO, AND THROUGH, SOME OF THE HOSPITALS
OF PARIS.

Correspondents from abroad have been in the habit of writing out, or reporting lectures, or some interesting operation, which

are usually found in the medical journals. To report a lecture requires more than ordinary skill. Few of us understand, or speak French well enough to take notes verbally, even if we could write sufficiently fast. We must trust greatly to memory. Then justice is hardly ever done to the lecturer. One word added or deducted from what the lecturer *really* said, may change his meaning entirely. Whenever you find a faithful report of a Parisian lecture, take it for granted it is a mere *translation* from a journal.

The Parisian hospitals, with the exception of one, the *Lariboisière*, are certainly the poorest looking establishments imaginable. But for the most perfect system of discipline and order, and the most exemplary organization, it would be impossible to attain good results.

The hospitals of Paris, though founded at different epochs, by kings, princes, ecclesiastics, or rich men, and for a long time managed according to their own constitutions and by-laws, wholly independent of each other, have, since the revolution of 1789 been centralized and brought under one administration. The present organization, however, dates from the 10th of January, 1849. It is under the immediate authority of the Minister of the Interior, and the Prefect of the Seine. The Board consists of a President and a Board of Council—the members of which are taken from nearly all classes of society in Paris. One third of the members go out every two years. It is known under the name of “L’Administration générale de l’assistance publique à Paris.” Sixteen hospitals, general and special, nearly as many dispensaries, medical schools, institutions for the blind, the deaf-mute, and the insane, are all under its charge. It is the most extensive and most complete hospital organization extant. Most of these *charity* hospitals contain *pay* and *gratuitous* patients. A polyclinic is held in all of them, where out-door patients receive medical advice and medicines without charge. The number of applicants at these *consultations gratuites* is fabulous, but not more so than the trifling expense at which they are conducted. A most important lesson is to be learned here on that score. The *access* to the hospitals is very restricted for visitors. Even physicians must present themselves, first, to the *directors* of each

hospital, and for two of them, the *Lourcine* and the *Maternité*, it requires an especial permission from the *Director-general*.

A written application, stating the object of the visit and countersigned by the Minister resident, must be made. This I did, and our amiable Minister, the Hon. Mr. Faulkner, readily affixed his name to it. The permission was at once granted. I also applied for books, pamphlets, and reports, relative to the "*Administration générale de l'assistance publique*," which were at once given me—fifteen volumes of most invaluable matter, from which our Board of Health might derive many useful and important hints.

So much as a preliminary—now for the visits. I begin with *la Charité* in the rue *Jacob*, it being nearest to my home. An old dingy looking house, with 494 beds, 247 males and 247 females. The physicians *en chef* are: *Piorry*, *Bouillaud*, *Briquet*, *Nonal*, *Pelletan* and *Beau*. Some of them are great lights. The surgeons, *Velpeau* and *Malgaigne* are celebrities. The veteran surgeon *Velpeau* is on the decline, on account of great age. His clinic, though numerously attended, is not profitable. He is followed by a corps of twenty-four internes and externes—white-apron men—who necessarily occupy the first place around the bed. Neither students nor visitors can get near it. Of course, *seeing* is a rarity if not an impossibility. *Velpeau* speaks now so low, that even *hearing* becomes difficult. Follow him in the amphitheatre, the same difficulty exists there; I saw him operate twice, and do not care to attend him again. The day of his greatness is passed. His obstinacy in absolutely resisting every progress in science, in which he was not immediately instrumental, renders him exceedingly unpopular. His resignation is anxiously looked for.

M. *Malgaigne's* clinic is followed by none. He is absolutely forsaken at the sick-bed. He never *operates*, he only lectures. As a lecturer on "*opérations et appareils*," he has no equal; he is certainly the most brilliant and popular in Paris. It is strange that he who speaks so well about operations, and who has invented so many instruments, and criticises and rejects so many more, should never venture to *perform* an operation. His lectures at the *École de Médecine*, from four to five o'clock, are immediately preceded by Monsieur *Guillot* on *Pathologie Médicale*—an *intolerable bore*—who walks up and down on his rostrum, talking to

himself, not noticing his hearers, if there be any, who are talking, laughing, smoking, throwing filberts at each other and at him. He closes precisely at 4, under hisses, and yells, and cries of *P'avocat! P'avocat!!* In the meantime the hall commences filling, until it is replete to overflowing. Malgaigne comes, and is received with shouts of applause. He at once starts off "in a gallant style." He speaks extempore, is extremely eloquent, at once satirical and witty. He keeps the audience in a state of constant excitement and hilarity. His manners are theatrical. One feels as if being rather with a satirist than a teacher of serious subjects. He entertains, he amuses; but certainly does not teach. The hearers come in for recreation, but not for edification. I have yet to learn what is the good of his lectures. Whether we know the whole armory of surgery of by-gone days or not, adds very little to our skill; cutlers get rich by it, but surgeons are not wiser, and patients not better. The chair of Malgaigne might be readily abolished.

At La Charité, Piorry attends chiefly to the chest diseases, and Nonat to the women. Every Thursday, he holds a *consultation gratuite* for out-door women. Not less than fifty present themselves, who are all, without exception, examined with the *speculum*. Such abuse of an instrument, and such brutal inefficient treatment, I never thought possible. His diagnosis is as false as his treatment is stupid. Woe to the young physician who would receive his first instruction there. Still they are in attendance by dozens. Whether attracted by an indelicate curiosity, or because they really believe much can be learned, I can not say. Certain it is, such a mode of procedure would *not* be tolerated in our country, and should be repudiated here. The other *chefs* only attend their wards, each having several internes and externes attached to his service.

The next hospital I saw was *l'Hôpital de la Faculté*, where I only attended a few times with Nélaton, the most brilliant surgeon of Paris. He is as handsome as he is intelligent, and as agreeable as he is learned. This hospital, also, is absolutely unworthy of Paris. Nothing but the interest afforded, and information acquired, by such a man as Nélaton, would induce me or others to visit it. His clinic is excessively crowded, not only by students but old practitioners. His internes have not the pre-

rogative of monopolizing the bedside. Hence by being posted about the interesting cases, and taking the stand in time, one reaps the full benefit of that man's observation. He speaks clearly, loudly, and to the point. Following him in the small, illy constructed amphitheatre, where every inch of ground is occupied by eager and attentive listeners, he elucidates in a most felicitous, extremely instructive manner, the cases in the ward, and those to be operated on. He is eminently practical and philosophical, and never fails to leave you without a perfectly clear understanding of the case. I never will forget his *remarks* on abscesses in the medullary substance of the bones—his illustrations on the black-board; still more on the old pathological specimens; and then the operation, with the trephine on the humerus, for this disease, which not only verified the extremely difficult diagnosis, but gave unspeakable relief to the patient. I could not do justice, by reporting from my memorandum his learned remarks. A word omitted would be an irreparable loss. I bought his work on this subject, which will be at your disposal. He alone is worth a visit of a month in Paris, not only for the surgeon but the pathologist. Such men as Nélaton give éclat to an age, and reputation to a medical school. I have seen operations performed as well, but never saw them introduced in such a forcible, clear manner, carrying conviction of his views and acquiescence in his proceedings. The other wards of the Faculté I have not seen yet; one of them is of considerable interest. I mean the "*clinique d'accouchement*," under Paul Dubois. I will refer to it on some other occasion.

The *Hôtel Dieu* is the oldest hospital of Europe, having been built in 660; and for nearly ten centuries it was the only hospital of Paris. It has 810 beds; 430 for male, 380 for females, 555 for medical, and 255 for surgical cases. It is a most inconvenient institution, being built on both banks of the Seine, with the two parts connected together, by a *passerelle*, and a *pont volant*. The service there is very difficult. A total removal of the building has been long spoken of, and is much desired. I only attended a few times the clinic of M. Trousseau, one of the glories of the profession, and the pride of Paris! He is a very handsome man, of dignified but courteous demeanor. His clinique is not in the least better attended than it deserves to be. Men

already high in the profession follow him; for he is always instructive, philosophical and agreeable. The crowd is too large to profit much at the bedside, although he speaks loudly. The lecture room is always replete to overflowing. His true greatness is at once manifest. His voice is beautiful; his gestures apropos; his language choice; his emphasis just at the right point; his ideas are clear, well digested, admirably expressed and convincingly true. These truths are not only conveyed by sound reasoning, but by ocular demonstration on pathological objects.

The medical clinics are not quite as conscientiously conducted in Paris as in Vienna and Berlin, where the crucible, the test-tube, the microscope, and other physical apparatus are constantly brought into requisition; but they are for all that good. As diagnosticians, they need fear no rival; but their therapeutics would be wholly inapplicable in our country. Every moment spent in studying therapeutics here is time and labor lost. Infinite good might be derived from studying and imitating their admirable and rigid system of *diet*, which certainly, more than all their medicines, effects the cures. Their nurses are usually well schooled and experienced, not the first best "who wants a place." Their intelligence in watching, and the constant presence of numerous *internes* and *externes* for observing and rendering immediate aid, cause more good results than the learned clinical treatment during the grand visit. Besides Trousseau, there are in the Hôtel Dieu the following *medicins en chef*: Rostan, Piedagnel, Guérard, Grisolle, Legroux, Horteloup, Barth; and the surgeons are Laugier, Jobert de Lamballe, Robert. All have a corps of *internes* and *externes* attached to their service. The *externes* are those who have completed their medical studies, but have not yet graduated. In applying for an appointment, they have to make a *concours* before a properly constituted board of examiners. The best of those examined are chosen. The appointment is for not less than one, nor more than two years. They do the minor surgery of the hospital, such as dressing wounds, cupping, &c. They receive six hundred francs a year, free lodging and board. After having been an *externe* for not less than a year, he must make another *concours* if he aspires to become an *interne*, who does all the

medical duties of the hospital in the absence of the *chef*. The appointment does not exceed five years; they must change hospitals every year and rank according to seniority. Their appointments are the same as the *externes*. What an immense advantage for a young student to receive such an appointment! While on duty for five years, they prepare for the final rigorous examination to obtain the degree of M.D., &c. Of course, there must be some slight difference in the requirements here and in the United States.

The *Salpêtrière* is only remarkable for its enormous size, occupying not less than 90 arpens of ground, mostly covered with buildings. There are 4369 beds; of which 3048 are for aged females, and 1321 for the insane females. There are no males in the *Salpêtrière*. With the attendants and officers there are 5800 persons in the institution—quite a respectable sized town; the food for *all* these is prepared in *one kitchen*, which is really not much larger than many of our hotel kitchens. The *laundry* is also a most interesting department; for they not only do the washing for the large population of the *Salpêtrière*; but also for three more hospitals, namely, the Charité, Hôtel Dieu, and Beaujon. An army of feminines stands around the immense basins of running water, doing the work not half as well, and not one-eighth as fast, as one of our washing-machines would do it. However, Parisians are very slow to adopt things from abroad.

The physicians *en chef* are, for the medical department: Cazalis, Richard. For the insane: Fabret, Mitivié, Lelut, Trelat, Bailarger, (the first and last eminent psychiatrists, and proprietors of large asylums for paying insane.) The surgeon is M. Follin, quite a prominent surgeon and oculist. He gives every Saturday a free course of lectures on the ophthalmoscope, with demonstrations with a large sized instrument. They are well attended, and quite instructive. Material is of course abundant. The changes of the interior of the eye of aged people can nowhere be better studied.

The *Hôpital du Midi*, with 336 beds, all for males, is only for *venereal* diseases. This was the theatre of the immortal Ricord for nearly a quarter of a century. *He is there no more.* He has *resigned* his office as one of the surgeons of the *Midi*. According to law, hospital physicians must withdraw at 65, and

hospital surgeons at 60 years of age. It is thought the hand is not steady after that period of life. But it is strange, *professeurs* are permitted to retain their position for life; else Velpeau would have had to withdraw long since. Ricord is near, but not quite, sixty years of age. He withdrew sooner, it is said, on account of the loss of his *prestige* of being the infallible oracle in venereal diseases. Since he was forced to acknowledge his defeat by the German syphilographers, his temper has become soured, and he goes to medical reunions no more. His admirers will give him a banquet at the Louvre on the 20th instant. There were always three chefs at the Midi—one medical, Puche; and two surgical, Ricord and Cullerier. The latter has taken Ricord's place, and Cusco is his successor, a brilliant young surgeon, who is rapidly stepping into the popularity and practice of Ricord. The latter has published a "Farewell" work on Chancre; the first edition has been exhausted as fast as issued. However, I got a copy. A few months' sojourn at the Midi will familiarize a person perfectly with syphilis in males, and also with the different, almost contradictory, views and treatment of the respective *chefs*. I will have occasion to explain and substantiate the last assertion. Whether they are here more successful in treatment than we are in the United States, I can not say. They certainly ought to be; for they are not sparing in bold and most extraordinary means, which in private or even hospital practice in the United States would not be feasible.

The *Hôpital de Lourcine*, with 276 beds, is the hospital for venereal females. Not even physicians are admitted, except with an especial permission from the *directeur général*. It is under the charge of the Sisters of Compassion, a religious order. The wretched inmates leave the institution, not unfrequently, not only cured but reformed. The *medicin en chef* is Lailler; surgeons, Ad. Guerin and Ad. Richards, the last one a rising star, already before the world as the author of many works on the natural sciences. He has to perpetuate the fame of his distinguished father, the botanist, and pathological anatomist; and he bids fair to succeed. He is most courteous and communicative, (a virtue in which the Parisian *chefs* do no abound.) I will hereafter mention some of his new views and treatment of syphilis. In the Lourcine, the surgeon does not go round to visit, but he takes

his seat in a small well-lighted room. The damsels come in, as they are called, are placed on a well arranged couch before the light, and are at once *speculated*! a new word, but fully conveys the meaning. A crop of venereal vegetations—condylomata—as large as a cabbage head, were clipped off with scissors, touched with the Vienna caustic, and sent away, not rejoicing but screaming; and he thinks cured, both of the disease and the vice. No other remedies are used. Vaginitis and the accompanying blennorrhœa is treated by tamponing with balls of raw cotton steeped in a solution of *equal parts of tannin and glycerin*. I was assured that of all remedies tried there for that stubborn malady, this has proven the most effectual. I can bear testimony to the efficiency of this remedy; I have used it long ago, only taking one part tannin to eight of glycerin, and always with better results than with any other remedy. As a general rule, there are very few medicines given in syphilis either at the Midi or Lourcine. Diet and bathing seem to be the main stay. Before I leave this city, I will take a private course in these two institutions, and will be able to bring home some items which books do not tell.

The *Maison d'Accouchement* or *Maternité*, of 530 beds, is, like the preceding one, not accessible except by an especial permit from the directeur général. The *medecin en chef* is Delpech, and the surgeons, Danyau and Beraud. The *sage femme en chef* is Mad. Alliot.

This is not only a hospital for parturient women, but also a school for midwives, there being over 150 in attendance, who receive a most thorough French education; a perfect anatomical and physiological knowledge of the pelvis and the female organs of generation; of the process of gestation and parturition, &c.; of pathology, they learn enough to know when such a condition occurs, so as to demand medical aid. They are required to complete a two years' constant sojourn, and to do all the menial duties needful about a parturient woman; have to become *gardes malades*, and each, in turn, superintends the whole process of accouchement. Two thousand five hundred births are averaged every year. Their opportunities for learning are therefore excellent. Lectures are daily given by Beraud and Mad. Alliot, who is not only a superior skillful *accoucheuse*, but an uncom-

monly fluent, clear teacher, a rigid disciplinarian, and a good excellent woman. I met an American lady from Pennsylvania, Mrs. Cleveland, there, who evidently has seen better days, but now studies midwifery, with a view of practicing in Philadelphia. Mad. Alliot spoke of her in terms of the highest praise. Philadelphia ladies may therefore feel at ease.

I witnessed an *accouchement forcé* by forceps, rapidly and successfully terminated by Danyau. On removing the placenta and examining the membranes, a perfectly *round hole*, as if made by a bullet, was found on the part nearest the fundus uteri. On enquiry of the mother, she stated that she had been *wet* during nearly the whole period of gestation. There must have been a *stillidium amnii* going on, and had the hole been on the lower part of the membranes, the amniotic fluid would have escaped entirely and abortion have resulted. Danyau, a man of 70, and 40 years in service, mentioned this to be the third case on record.

The *Maternité* is illy constructed, the rooms low, badly ventilated and lighted, and yet they hardly ever have an epidemic there. As a *maternité* it is smaller than that in Berlin, and of course not one half the size of that in Vienna. It is a pity that physicians are excluded; but on the other hand, it is praiseworthy for respecting the delicacy and privacy so needful to parturient women.

The *Hôpital de Lariboisière*, of 612 beds, equally divided for males and females, but 408 for medical and 204 for surgical cases. This is the newest and the only handsome hospital in Paris. It is built in perfect imitation of the *Hôpital St. Jean* in Brussels. It consists of six pavilions, separated by small gardens, and all six connected by an arcade. Each pavilion is three stories high, each story being one large hall. Of course, such an arrangement will secure ample light and air, and looks very cheerful and pleasant. The *medicins en chef* are: Pidoux, Tardien, Herard, Moissenet, Oulmont, and Duplay; the *surgeons* are Voillemier and Chassaignac. Monday is the operating day with the latter, and I regularly attend him; for he is racy, original, bold, and uncommonly instructive. Chassaignac has an *ecrasmania*. In most cases where other surgeons use a sharp cutting instrument, he uses the *écraseur*. Tumors are not touched with any thing else. I saw him operate on three persons, each

with a double fistula in ano, through which a tube de drainage was passed; he attached a thread to the tube, drew it through the fistula, and with the same thread the end of the chains of the *écraseurs* (2) was drawn through, both worked at once, and both fistulæ divided at once, without the loss of a drop of blood; no dressing was made nor required; the patients went on their way rejoicing. A *carcinoma* of the rectum as large as a child's head was removed in the same way, leaving a most awful gaping wound; no blood escaped, and the wound is healing kindly. I might multiply cases, but they are not now new to any one. But he has another new hobby, which he rides to death, upon which he recently published two large volumes—his *tube de drainage*, which he uses in *all cases* where a suppurative inflammation is established or desired to be maintained. It consists of small india-rubber tubes, perforated with numerous round holes, which are drawn through an inflamed organ by means of a trocar, as we would a seton, and there left. Nothing can surpass the beautiful immediate results, after such simple and most rational treatment. The tubes *do not* cause irritation. By their use mammary abscesses have lost all their gravity and terror. The remedy is cheap, easily applicable, and should be in every practitioner's pocket, as it certainly will be in less than a year. *This*, and the *treatment of fractures with gypsum exclusively and never with splints*, are the *two greatest* discoveries I have met with in Europe, and they are perfectly worthy to be perpetuated.

The *Hôpital Saint Louis* has 858 beds: 224 for males, 320 for females; 657 for medical, 196 for surgical cases. This is exclusively for cutaneous diseases. The world has no other like it. In no form does disease appear more horribly disgusting than in the uncountable and unaccountable forms of skin diseases. The *medicins en chef* are Bazin, Cazenave, Hardy, Devergie, Gibert, Hillairet. The three first are celebrities of no mean order. Their works are standard; their classification is about the same as Willan and Bateman, and their treatment, even if better, is not more successful than ours, except in their management of *la gale* or the itch. One half of the patients coming to the *consultations gratuites* are affected with the *gale*. The furrow through which the acarus might have made his entry is sought after, and if it is found it establishes the character of the malady beyond

question. The patient is told to come back on *Saturday*, the great *rubbing* day, and he will be cured in two hours. On that day, all the cases that have accumulated during the week present themselves, and the following process is gone through with: 1. Rubbing the whole body for half an hour with strong black soap; 2. Bathing in warm water *another* half hour; 3. Then rubbed with an ointment consisting of sublimed sulphur $\frac{1}{4}$, sub-carb. potass. $\frac{1}{2}$, lard 1 part, for another half hour. I am told that not once in a thousand cases does a relapse occur. It is a curious burlesque sight to see one hundred naked men or women, rubbing themselves or each other; to see them go in covered with itch, and come out cured. Any parasitocidal remedy might do the same—hence turpentine, corrosive sublimate, arsenic, red precipitate, etc., would answer, without so much ado, and without danger to the patients. I do not admire their treatment half as well as Hebra's in Vienna. However, I will familiarize myself with it. I go there every morning from 8 to 11, and will continue to do so until January 1st. I dare say, in advance, that their practice would not be feasible with us; two-thirds of the patients would be better out than in.

I will close by briefly referring to the eye clinic of Desmarres, which I am attending daily from 12 to 8. This is not a hospital, but a private dispensary of M. Desmarres, the first oculist of Paris. From 250 to 300 cases present themselves daily. The order observed is the following: 1. Those to be cauterized, and with lacrymal fistulæ; 2. The children; 3. New cases; 4. Those to be operated upon; 5. Those who have been operated upon; 6. Ophthalmoscopic inspection. Nos. 1, 2 & 5 are gone through with at the rate of four in a minute; with the others more time has to be taken. The clinic is chiefly conducted by Desmarres *fils*, a most promising, brilliant, and already prominent young man, in presence of Desmarres *père*, who watches carefully and lovingly his hopeful son. It is incredible with what promptness and exactness he diagnosticates, and with what dexterity and safety he performs all minor operations. I asked him once, "*comment pouvez vous faire le diagnostique, sans regarder le malade?*" "*Je le flaire,*" I smell it, was his answer. It almost appears so. As soon as one approaches, he calls out to the registering clerk the diagnosis and treatment, or orders him in

the operating room, or in the dark room for the ophthalmoscope. This department is superintended by Dr. Golzenowsky, a Pole, long with Desmarres. The old gentleman performs all operations in a most graceful and skillful manner. Five to six operations daily, especially Mondays, Wednesdays and Fridays; Thursday is exclusively devoted to the ophthalmoscope. Græf's clinic is more brilliant, but not as large as that of Desmarres. He is eminently practical and philosophical, like him. He is a double millionaire, and like him, has a practice of 250,000 francs a year. This clinic is founded and maintained by himself. Imagine the amount of good that man does in this world. Physicians from different parts of the world attend here, and pay twelve francs a month, which goes to the *concierge*. Desmarres *père* accepts nothing. Desmarres *fils* gives private courses, at 150 francs a month, and so does Golzenowsky, at the same rate, for the ophthalmoscope. I am with both, and will continue while I am in Paris.

ARTICLE V.

DIPHTHERIA.

A Report to the St. Louis Medical Society. By THOS. KENNARD, M.D., *Physician to the St. Louis Dispensary.*

It has been recorded more than once in the history of our profession, that a disease peculiar in character and fatal in its effects has prevailed epidemically in various parts of the world, spreading consternation and baffling the ablest efforts of medical men, and after sweeping off thousands has itself died out and been forgotten for ages, then reappeared and been considered a new disease. Such has been the case with diphtheria, whose history has been traced by some to the days of Homer. The sage of Cos, who lived four hundred years before the birth of Christ, is said to have alluded to it, and there can be no doubt that Aretæus, a physician of Cappadocia, and a most inquisitive man, left us a good description of this—to him, no new disease—having been known for years previous in Egypt and Syria as *Syriac ulcer*. His description of its etiology, symptoms, and fatality, applies as

well to the trouble we have had to contend with as it did more than twelve hundred years ago. Three hundred and eighty years after the birth of our Saviour, Macrobius met with it, after which we lose sight of it for nearly a thousand years, when Holland is scourged by it, at intervals, for nearly two centuries, and then for the first time it reaches Paris in 1576, decimating its inhabitants; and a half century later, we hear of it in Spain, and then in Naples, where it prevailed epidemically for twenty years. From 1650 to the time of its reappearance in France in 1740, we have but meagre accounts of it; but after this it crossed over to England, and about the same time was described in our own country by Dr. Dickinson, who gave an account of the epidemic in New Jersey during 1734 and '35. In 1761, we hear of it in Sweden; and again in 1771, Dr. Samuel Beard mentions its prevalence in New York. From that time until Bretonneau of Tours described it in 1826, we have but little trace of it. From the appearance of his masterly memoir until the present day, we have had to contend with it throughout Europe and America. That the disease is the same in nature, varying in degree but not in kind, presenting shades of difference in every age, and in almost every epidemic, we can not doubt. Whether we study it as the Syriac ulcer of Aretæus and Alaymus, the gorotillo of Spanish authors, the "*male de canna*" (trachea disease) of Italy, the angine of France, or the angina suffocativa of America, it is one and the same pseudo-membranous sore throat or diphtheria of modern authors. In each and every epidemic we find the characteristic exudation, forming in the fauces and extending to the nares and sometimes to the trachea; the occasional accompanying eruption and marked prostration; the strangely insidious mode of attack and defiant course, and the same distressing sequelæ. We find it frequently mistaken for scarlatina, and always resembling croup; the initiatory fever, the great weakness without apparently sufficient illness, the intense redness of the fauces, followed by the characteristic gray patch or ulcer, and the frequently suffocative dyspnoea, have always been the same in nature, though differing somewhat in every country and epidemic; some cases proving perfectly amenable to treatment, and others defying the best efforts of man.

We almost all agree now in considering it a specific disease,

the formation of the false membrane characterizing it as such ; and we also think it a blood disease affecting the whole system, differing from croup, differing from scarlatina, resembling more or less, but not the same as gangrene of the fauces, or any other affection of the throat. No scientific or accurate diagnostician confounds it with other diseases, or fails to perceive its effects upon the whole system and its peculiar exudation.

Nature.—Authors still differ as to its being contagious, infectious, or simply malarial ; and from the fact of its appearing sporadically, sometimes as an epidemic attacking all classes and ages, the rich and the poor ; the inhabitant of elevated healthy country as well as the denizen of the low, swampy, bilious districts ; the dwellers in the mountains, and those who live by the sea-shore ; those who luxuriate in the mansions of wealth and the starving poor of our crowded and ill-ventilated tenement houses—we can hardly confine it under either head. Trousseau says : “In the villages of the Loire, remarkable for their salubrity and their excellent position, I have seen diphtheria prevail to a terrible extent ; whilst the villages of Sologne, situated in the midst of marshes, remained exempt ; and, again, hamlets bordering upon ponds, depopulated by the epidemic, while others enjoyed a complete immunity.”

Another author (Mr. Ernest Hart of London) : “It was observed of diphtheria in France, and it is equally characteristic of its course in England, that it did not obey any geographical or meteorological laws. It descended upon Tours in the rear of the legion of La Vendée ; broke out in crowded and ill-ventilated barracks, and it spread throughout the town ; it visited alternately the open hamlets of the rural departments and the crowded courts of the great cities ; it raged in Orleans and in Paris, through the Sologne and in the Loiret ; it reached the sea-side and fell with violence upon the infant population of the city of Boulogne. It appeared to be equally independent of atmospheric conditions. Was a theory formed that it depended upon solar influence, and that the heat of the summer months lent fresh force to its destructive attacks ? soon it raged with greater violence in the winter months and during the cold season. Was a connection traced between the localities of its invasions and the marshy, ill-drained character of the land ?—the next season it was found to ravage

dry and elevated stations with equal rage. It has been no less careless of the limitations of heat, cold, dryness and moisture, since it has established a camp in this country. * * * It has swept across the marshy lowlands of Essex and the bleak moors of Yorkshire. It has traversed the flowery lanes of Devon and the wild flats of Cromwell that are swept by the sea-breeze. It has seated itself upon the banks of the Thames, scaled the romantic heights of North Wales, and has descended into the Cornish mines. Commencing in the spring months, it has continued through the summer; and if extremes of temperature have appeared to lend it fresh vigor and the heat of the dog-days or the severe frosts and sleet of winter have fostered its strength, yet moderate temperature has not greatly abated its influence, and it has struck a blow here and there through all the seasons."

As inextricable as our researches yet leave it, there must be some peculiar condition of the atmosphere, some unknown susceptibility of the system favoring its propagation. No position in life can exempt us from it; and without proper hygienic rules, the wealthy and well provided for are but little less apt to suffer from it than the poor. Some have attributed it to albuminous urine, whilst others thought of parasitic origin, but neither idea seems to have gained much confirmation. There have been and still are many advocates of its contagiousness, from seeing many persons in the same vicinity, many children of the same family attacked by it, one after another; and instances seem to prove its capability of being produced by inoculation, as when a physician or attendant has gotten it from accidental contact of the exudation with his throat or nose. I am inclined to think it both infectious and contagious, and very much influenced by the atmosphere; not, however, by changes of heat and cold, or moisture and dryness, but some unknown peculiarity of its constitution.

Pathology.—The one only characteristic lesion is the fibrinous exudation or false membrane which forms on the pharynx, tonsils, larynx, and often extends to the adjacent mucous membrane lining the nasal cavities, or the trachea. It is likely to attack any mucous membrane exposed to atmospheric influence or on any abraded surface. It has frequently attacked the vagina of females, and occasionally the conjunctiva—but seems to prefer the fauces, nares, and mucous membrane lining the mouth.

This white, greyish or yellow exudation, as the case may be, generally first manifests itself on the tonsils, as specks or circumscribed patches, which, unless checked at once, spread rapidly, covering in a few days the whole of the fauces, extending down the pharynx and larynx, and through the nares, and sometimes involving the œsophagus and trachea and even the bronchial tubes. The membrane increases in thickness as it spreads, grows darker and more dingy, and after a variable time begins to be detached first around the edges. Its consistency, thickness, and adhesiveness, vary in different epidemics and cases. In the early accounts of the disease the subjacent inflammation seems to have been much more severe, producing, as it often did, destructive ulcers of the tonsils and violent adenitis of the cervical glands. Now we rarely have much destruction of tissue—nothing but a bright shining membrane is seen on removal of the exudation. Most pathologists agree that there is nothing specific in the nature of the false membrane, that it is not any form of parasitic growth as has been alleged, but is very similar to the false membrane of croup, consisting mainly of coagulated fibrin covered with epithelial cells. The lungs are usually normal in appearance except when the exudation has formed in the trachea and permeated the bronchial tubes, or the complication with pneumonia has produced congestion or hepatization. The kidneys have been considered by some to be more involved than any other organs, always manifesting signs of inflammation, and that albuminaria is almost a constant accompaniment of severe cases, particularly in children. The excreting function of the kidneys seems to be stopped; and as a consequence a retention of morbid matter in the blood occurs. Others lay but little stress upon the renal complication, and state that the existence of albumen in the urine does not prevent the increased elimination of urea from the blood or produce blood poisoning. In the cases under my charge I have not examined the urine, but the secretion seemed generally free; the other organs, except the eyes and ears, seem but little affected; temporary blindness and deafness are quite common, and permanent deafness as well as complete loss of sight occasionally follow; the skin is left dry and harsh, and the whole surface presents an anemic appearance, and returns very slowly to its natural healthy glow.

Symptoms.—Diphtheria generally runs a regular course, and is marked by the characteristic exudation as definitely as variola, scarlatina, or rubeola, is by the exanthematous eruption peculiar to each. Sometimes the poison is so virulent that it overwhelms the system before even the false membrane begins to form. Generally, however, it commences as a common catarrh, with but little fever or general disturbance, and but slight congestion of the mucous membrane lining the fauces (which, however, rapidly increases), followed by the formation of the exudation, and marked prostration. Very bad cases are sometimes ushered in suddenly by violent vomiting and purging of a thin and very offensive fluid, followed by great stupor and prostration, with frequent pulse, dry skin, red tongue, great thirst and irritability of the stomach. The fauces are bright shiny-red, covered frequently with a thin film of mucus. In twelve or fifteen hours the stupor disappears, and violent delirium with high fever, hurried respiration, hacking cough, and coated tongue, ensue, followed quickly by exudation on the hitherto reddened mucous membrane. The strength fails rapidly, the skin grows moist and clammy, the sensation of choking begins to be felt, and convulsions commence, soon to end the awful scene.

Again, it manifests itself with uneasiness about the throat—slight adenitis—gradually increasing from day to day, with little or no fever, and only a general feeling of malaise and loss of strength, approaching so gradually, that if we did not notice the characteristic exudation, we should mistake it for a slight attack of tonsillitis. Sometimes croupy symptoms prevail; there is the same crowing cough; the distressing constriction across the larynx; the rapid formation and extension of false membrane, and the consequent distressing apnoea and sudden death from suffocation. In every case the most characteristic symptoms are marked prostration, without apparently sufficient cause; soreness about the throat, with violent earache and coldness of the surface.

Diagnosis.—There ought to be but little difficulty in recognizing a disease so marked in its attack and so peculiar in its effects; but it has been confounded with scarlatina, with croup, with malignant angina, and no doubt frequently with tonsillitis and common sore throat. To the quack and all who play upon the credulity of their patients it is very convenient and advan-

tageous to call all cases of throat affection, however trifling, diphtheria, and gain credit for curing an intractable disease, when they are really doing nothing, or worse than that, counteracting nature's efforts ; but it is the province of the true physician to diagnose, as well as treat correctly, every case presented to him. This trouble resembles true croup in the formation of a similar false membrane in the larynx and trachea ; in its frequently insidious mode of attack, and somewhat in the local and constitutional symptoms, especially the croupy cough and constriction about the throat ; but the marked prostration, feeble pulse, cold clammy surface and quite frequent recovery sufficiently characterize it. It can only be confounded with this disease when the exudation extends to the larynx and trachea, which is the exception in diphtheria but the rule in croup. Croup generally destroys life in a few hours, and rarely lasts a week—two days generally closing the scene if relief is not afforded. Croup is almost entirely confined to children under five years, and most frequently attacks those under two, whilst diphtheria is not so closely restricted to children, particularly to those of very tender age. Blood-letting, emetics, and calomel, are the great remedies in croup, whilst they are seldom warranted in diphtheria. It resembles scarlatina in sometimes being accompanied by an eruption, but absence of eruption is a rare exception in scarlatina. In the latter disease we have hot skin, high fever, and often violent headache—the opposite to what we usually find in the former. In scarlatina, the exudation which we sometimes see, is not false membrane, and separates easily from the subjacent membrane. An attack from scarlatina does not protect from diphtheria, nor *vice versa*. The exudation on being removed in scarlatina discloses an ulcerated surface beneath, as in malignant sore throat ; but in diphtheria no abrasion or ulceration is seen, nothing but the bright shining membrane. It does not follow the same regular course, in its approach or decline, as we observe in scarlet fever. It differs from all other kinds of ulcerated sore throat in causing no destruction of tissues and in secreting no pus.

Treatment.—When the pathology and nature of any disease is neither rightly appreciated nor fairly understood, the treatment must be entirely empirical and of necessity different with every physician ; hence the great disagreement and dissatisfaction

in many of the modes recommended for the cure of diphtheria. Like all troubles treated in times gone by, it was combatted by bleeding, blisters, and calomel; and is even now subjected to a similar course by some. The bleeding and blistering has nearly died out, but some good physicians still recommend calomel in very small doses as the best of all remedies.

Believing the disease, as most enlightened practitioners do, to be a constitutional one, and the exudation in the throat only a local manifestation of the general blood poisoning, and remembering that death rarely occurs from the formation of false membrane alone as in croup, I think our chief attention should be given to the deranged state of the whole system, and we ought to support the strength from the beginning, not forgetting however to watch closely the throat affection, and use such local applications as sound therapeutics and general experience has proven most beneficial and effective in removing and preventing the deposition of false membrane upon the fauces, larynx or nares. The membrane is composed of coagulated fibrin, and certain remedies have the property of dissolving fibrin or holding it in solution, and thus preventing its abnormal deposit. All the compounds of chlorine seem to exert this power of dissolving fibrin and diminishing its amount in the blood; hence, we would employ chlorate of potash internally, chloriated solutions of soda and chloride of sodium locally; all of which have been tried and found very beneficial, combined with proper tonic treatment:—
R—Potassæ chloras, 3 ii.; Acid nitric, dilut., 3 iij.; Elixir of calisaya; Aqua menth., pip. aa 3 iij.; half tablespoonful every two hours, combined with muriated tincture of iron and quinine, in repeated doses, is good treatment for an adult. Locally we may use either a strong solution of common salt, or the following as a gargle: R—Liquor sodæ chlorinatæ, 3 ii.; tinctura myrrhæ, 3 iv.; aqua 3 vi. To be used every half hour. Or, solutionis chlorinii and syrupus zingiberi, aa 3 ss.; aqua, 3 vi.—M. ft. gargarisma, sæpe utendum, combined with the following internally: Solutionis chlorinii, gtt. iv.; syrupus zingiberi, 3 i.; elixir of calisaya, 3 ss. To be taken every third hour. Nitrate of silver has been extensively used, and highly recommended as a local application by most physicians, but I do not think it combines so many good properties as either muriated tincture of iron, muri-

atic acid, chlorinated solution of soda, solution of chloride of sodium, or turpentine. The solution of common salt is said to act favorably by causing free osmotic flow, and thus keeping the mucous surfaces so moist as to prevent and tend to remove the exudated fibrin. I have used it in a limited degree both as a gargle and external application, and with apparent benefit. Turpentine acts as a stimulant and astringent. In large quantities it is known to possess the property of coagulating albumen. Although many deny that volatile oils are astringent, the action of turpentine in checking hemorrhages in different parts of the body certainly simulates that of an astringent, whether it does it by stimulating the nerves, controlling the minute capillaries, and thereby causing this contraction, or by a direct physical or chemical effect upon the tissues, we cannot well determine. We know that it is rapidly absorbed into the blood, and exerts a general stimulant effect upon the whole system—at the same time that it is a local muco-stimulant, stimulating mucous membranes in a manner similar to cordials, carminatives and aromatics. It has long been used as an external counter-irritant, and nothing acts more favorably as such in diphtheria. I have not seen any notice of its use as a local application to the inflamed mucous surfaces in this disease; but my friend, Dr. S. Gratz Moses of this city, one of our most reliable practitioners, informs me that he has made extensive use of this remedy and with most surprising success. He now employs it in almost every case as a local application, and administers chlorate of potash and muriated tincture of iron in full and frequent doses. Muriate of ammonia has also been recommended as a good internal remedy. Quinine is one of our most reliable remedies, and must be given in small and repeated doses, to act as a tonic or restorative hæmatic, supplying some deficiency in the blood.

Our treatment must be expectant, but not timid or careless; for in most bad cases the tendency is to death by asthenia, unless the very rapid formation of false membranes should cause it by apnoea. We must sustain the vital powers from the beginning by free use of alcoholic stimulants, quinine, iron, and nutritious food; regulate the secretions and excretions by purgatives and eliminatives; check or change the local inflammation of the fauces; always pay most attention to the constitutional treat-

ment, and never use undue harshness and force in making local applications. No remedy combines more desirable therapeutic properties for the treatment of this disease than muriated tincture of iron, being a powerful astringent, fair diuretic, admirable hæmastic and reliable tonic. This combined with chlorate of potash, quinine, and brandy, internally, and either turpentine, hydrochloric acid, or some chlorinated solution, locally, has proven more efficacious than any other method. The acrid discharges from the nares may be corrected by repeated weak injections of sulphate of zinc, or chlorinated solution of soda, one part to twenty of water.

Sequelæ.—Many morbid conditions follow this disease. Generally the system is very anæmic, the skin harsh, dry, and colder than natural. The sight and hearing are impaired, and sometimes completely destroyed. Paralysis of both motion and sensation, or either separately, often supervenes. The palsy may be local, affecting simply the velum, palate, and pharynx, or the vocal apparatus, causing a difficulty in swallowing or speaking; it may attack the eye, or either extremity, or both, producing hemiplegia and paraplegia; and in some cases general paralysis comes on. There seems to be but little relation between the severity of the diphtheria and the consequent paralysis; for mild attacks have been followed by fatal paralysis, and *vice versa*. It is not generally fatal, though slow and obstinate; nor does there seem to be any necessary connection with albuminaria, as contended for by some. It must be due to the general blood poisoning. In the treatment of any of the sequelæ of this disease, we must remember that the system is struggling against the influence of a depressing poison, and whatever special treatment may be indicated for each particular case, we must always sustain nature, support the system by the most nutritious and digestible food, as milk, eggs, and fresh meats; by alcoholic stimulants; by the judicious use of quinine and iron; by free access of fresh air, frictions to the paralyzed part, if an extremity; by electricity, locally applied, and by strychnia, or warm sulphur baths, as the case may require.

ARTICLE VI.

PHTHISIS PULMONALIS.

A Paper read before the Pike and Lincoln Counties Medical Society. By C. R. S. CURTIS, M.D., Clarksville, Mo.

Perhaps no subject from the earliest history of medicine to the present day has received as much patient and diligent investigation from medical philosophers as the subject of tubercular consumption, in reference to its pathology and treatment, and yet we are compelled to admit that few subjects on which the analytical mind of medical philosophy has labored have rewarded our efforts so little as this; and we now find in this nineteenth century, when every art and science, and our own in particular, is boasting of its wonderful discoveries and advancement, consumption still the opprobrium of our profession, still the destroying angel for millions of our race. This is a lamentable truth! To realize it we have only to turn to the statistics of deaths in any of our large cities during any season of the year. And if this is not sufficient to satisfy our minds, turn to the various medical periodicals published throughout the world, and see there the reports of fatal cases and compare them with those of recovery, and see also the various and conflicting opinions of distinguished medical men both as to its pathology and treatment.

In this essay I shall not attempt to follow the beaten track of any of the popular theories of the day any further than the established facts of pathological and microscopical anatomy may lead me, but will give you the results of much careful observation, serious reflection and practical experience. Wherever the views taken correspond with those of others, it will afford me pleasure to know that they are confirmed by this experience; wherever they may differ, I shall hold myself responsible for them, and at the same time always glad to learn and be convinced of any error. With these remarks, I will proceed to consider the subject scrofula, as manifested in the form of tubercular consumption, in regard to its extent, location, duration, pathology, and treatment, including hygienic and climatic influences.

It will be impossible in an essay of this nature to enter into a discussion of this disease in all its bearings. To do so would be

to extend this essay to volumes. Many important subjects will have to be omitted entirely, others hastily passed over.

In tracing the history of this disease, we find its symptoms described by the earliest writers in medicine so clearly that we cannot doubt of its existence in their day; and although they knew comparatively nothing of its pathology, and were compelled to look through a glass darkly, without the aid of the microscope, or the laboratory, or even practical human anatomy and physiology, it is interesting to observe how closely, in many instances, they have approximated to the truth in their theories and speculations in regard to disease, its nature and treatment. In the writings of Hippocrates,* we find the following:

“When phlegm falls upon the lungs, or, when the lungs attract phlegm from all parts of the body, especially the head, they become irritated and ulcerated by its adherence and putrefaction. All the body grows hot and patients spit a good deal of this thickened and putrescent phlegm.” Speaking of its fatal termination, he says: “It is not possible to fix the time of this event; some lingering a long while, others perishing very soon. Concerning the prognostic in these cases; the sex, constitution, time of life and of the year, are to be much considered: in general, young persons are oftener and more violently attacked than old ones.”

Here we have an undoubted description of tubercular consumption from the Father of medicine, about 400† years before the christian era; and if its existence at that early period should still be doubted by some, the following aphorisms from him will remove all such doubts:

“Consumptive persons whose spittle being thrown on fire exhales an offensive vapor, and whose hair falls, do not recover.”—*Coac. Pr(æ)n*, page 176.

Again: “When the matter which consumptive persons expectorate sinks in sea-water, it is a sign of speedy dissolution; the sea-water must be in a copper vessel.”—*Coac. Pr(æ)n*, p. 176.

It would be contrary to the object of this essay to enter into a discussion of the views of these ancient writers. We would sim-

* See Riollay's Hippocrates, published in London, 1769, page 160.

† Hippocrates, it is believed, was born at Cos, about 432 B. C.

ply remark that their philosophy, though crude and often erroneous, yet abounded in many practical hints of great value. Our object in introducing these and other passages is simply to trace the history of this formidable disease, which we now see prevailed during the early ages of the world, and then as now too often resisted the utmost skill of the physician.

Dating then from the days of Hippocrates, we might introduce quotations and descriptions of the disease from eminent medical writers of each succeeding age up to the present date. But such a course would not be consistent with the limits or object of this essay. Passing, therefore, over the intermediate time, we will content ourselves with introducing one more quotation from the "Modern Theory and Practice of Physic" by D. Browne Langrish of the College of Physicians, London, dated 1738; from which some idea may be gained of the state of medical science on the subject at that comparatively recent date.

"A cough is the most perplexing concomitant belonging to a consumption of the lungs. At first, it is dry, and arises from an irritation of the matter pent up in the obstructed glands, as also from the stiffness of the nervous membrane lining the bronchial pipes, and from the stimulus of the air, which has now too free an access to the nervous fibrillæ, for want of mucous matter to defend them; but in the progress of the disease, when the obstructed matter begins to digest and corrupt, the serous, watery or thinnest parts will of course be squeezed out first, through the excretory ducts, into the cavity of the bronchial vessels; and being very acid, saline, and sharp, it further irritates the nerves, and excites most grievous fits of coughing; and in the height of the disease, when the matter is further digested, and the excretory ducts are widened, or when abscesses or ulcers are formed in the lungs, the cough is aggravated by a vast quantity of viscous, putrid matter, which is discharged into the bronchial pipes. The matter which is spit up is sometimes sweet, and at other times very fetid, sanious and offensive; according as it has lain a longer or shorter time out of the verge of circulation."

Prevalence.—Perhaps there is no one disease from which so many of the human race annually perish as tubercular consumption. Neither age, nor sex, nor climate, nor season, nor circumstance will protect us from the invasion of this fell destroyer. Yet

it is found to prevail to a much greater extent in certain climates and at certain ages than others. In general, the inhabitants of a cold dry climate are most exempt from this disease. It is least liable to occur in a dry climate, whether warm or cold, providing it be not subject to sudden changes. The disease is found to prevail least during the first two years of life, but increases in frequency up to thirty years; between twenty and thirty the greatest number of deaths occur. From thirty, upwards, the proportional number of deaths from this disease gradually decrease.

Sex.—It has been generally supposed that females were more subject to this disease than males; this supposition was founded on statistical observations made in Paris, but more recent observations made in other portions of the world render those conclusions somewhat equivocal.

Duration.—Tubercular consumption is emphatically a chronic disease. Its duration is always indefinite, depending upon a variety of circumstances, such as age, constitution, climate, occupation, treatment, &c. It has been known to terminate within eleven days, and it sometimes extends over a period of forty years. Its average duration may be stated at from nine to eighteen months.

Symptoms.—The symptoms of this disease are generally sufficiently marked; but often, especially in the early stages, they are masked and latent, often requiring all the skill of the physician to diagnose them. To discuss at length the symptoms and diagnosis of all the multifarious forms of tuberculosis would be trespassing too much upon your time and patience, and at the same time contrary to the spirit and design of this essay. Our object being rather to investigate the pathology of the disease than to linger over the well known and often repeated details of the symptoms and diagnosis, which, though of the utmost practical importance, every physician is expected to understand. For these, I would respectfully refer you to any and all the standard medical authors of the day.

It now becomes my duty to enter upon the discussion of the pathology of this disease, and here I beg to remark, that I offer these views with all due deference to the opinions of others, hoping they will receive your candid and serious consideration. No disease has received more attention from pathologists. No

disease have they labored upon more assiduously to explain and understand. Yet, notwithstanding these facts, much concerning its pathology and ultimate cause remains in doubt and darkness. And it is chiefly to investigate some of these dark points that the present essay is written.

What is tubercular phthisis? It may be defined to be a disease of the organism in general, and of the lungs in particular, accompanied by a deposit of tuberculous matter within the lungs. But what is tuberculous matter? and what is the cause of its being deposited in the lungs or elsewhere? Here the broad question opens before us, and it must be met. In order to arrive at a thorough knowledge of disease of any kind, it is not sufficient to acquaint ourselves with the ordinary symptoms and outward manifestations, or even with the morbid changes revealed by *post-mortem* examinations. These it is true are valuable aids; they are the mile-stones on the journey, but not the goal to which we must attain. We must avail ourselves of these aids and all others within our reach, and then subject them to the light of reason and philosophy, compare them with other phenomena, and mark their connection, and finally trace them to their ultimate finite source. The human body has been so formed by the great Architect, that from the most minute molecule or fibre up to the most complicated organs and members, two great distinct forces are operating together in harmony and accordance, so that in health neither shall interfere with the action of the other, but each molecule and organ shall fulfil its distinct and specified part in the production of what we are pleased to term life. These forces are termed the vital and chemical forces. In order to preserve the equilibrium of health they must be well balanced. For if one should gain the ascendancy in any organ or part of the system, such organ or part of the system will be disturbed in the fulfilment of its particular function, and this disturbance reacting upon the organs with which it is connected, and from thence acting and reacting upon others, may at length arrest the functions of all the organs and eventuate in death, unless some more potent power should arrest its progress and turn it back into its normal state. In the simplest forms of life, whether animal or vegetable, we find by the aid of the microscope a simple cell composed of certain forms of matter and containing within it a nu-

cleus and nucleoli. This cell is being acted upon by these two forces; the chemical force whose action alone would be to dissolve its present connections and resolve it back into its ultimate elements, and the vital force which modifies and controls the chemical and so bends its action as to make it subserve the purpose of growth and development in the cell. Under these circumstances the cell grows and is matured, fulfils its specific and reproductive function and passes away or dies, its offspring remaining to fulfil its place and pass through the same changes. This, so long as the chemical and vital forces and other conditions maintain their equilibrium. But if, from any cause, the vital force becomes impaired or increased, not sufficient however to arrest the action entirely but to change and modify it, you must have a corresponding change in the function and development of the cell. If the vital force is diminished, the growth and development of the cell is diminished and its function impaired. Now then returning to the consideration of tuberculosis, we find the prominent morbid change to be a deposit of a morbid matter in the lungs or in some other portion of the body; for convenience, we will suppose it to be in the lungs. But the question for us to answer is, where did the lesion commence, where did the first link in the chain of morbid action begin? If it be answered that it is a constitutional disease arising from a depraved condition of the blood, we claim that the blood is only the representative of the formative action of the *prima via* on the nutriment supplied to the stomach. If it be answered that it exists in the *prima via*, the stomach, the liver, or the pancreas, and that these organs pour into the circulation ill-elaborated and feebly vitalized blood, (we are supposing the stomach to receive its due supply of healthy nutriment, which is often the case in hereditary phthisis,) we reply that the healthy performance of the functions of these organs depends upon the supply to them from the blood of healthy material for their secretions. *Post-mortem* examinations show them to be in a healthy condition. So we cannot attribute the first morbid change to the blood, because this is the creation of the *prima via*; and we cannot attribute it to the *prima via*, for these again are dependent and governed by the condition of the blood.

Again, another class of philosophers might claim that the blood,

though perfectly formed when poured into the circulation by the thoracic duct, by some mysterious process undergoes a degeneration and loses a portion of its plasticity after entering the circulation, and thereby becomes unfitted to supply to the tissues healthy organizable material for their reproduction and the due performance of their functions. Such a view must certainly appear groundless and untenable, and even the possibility of the morbid action beginning or existing in the blood when we come to consider the circumstances of pregnancy in this disease. A woman laboring under undoubted phthisis becomes enceinte. The disease is somewhat arrested in its rapid progress, and for nine months from her own blood she nourishes her offspring, and then gives birth to a fine healthy child. Here you have plastic organizable material supplied from the blood of a patient laboring under undoubted consumption and resulting in a fine healthy child. What could be more conclusive than this? What further proof could be asked to relieve the blood of such a charge.

But still the question presents itself, where did the first link in the chain of morbid action begin? It did not begin in the blood. It did not begin in the *prima via*. It must then have begun in the tissues themselves, and this, gentlemen, is where I really believe it does begin. Let us return again to our philosophy of the cell. The simple cell may be regarded as the representative of all organized tissues. Indeed a large portion of all organized tissues is known to be formed of innumerable cells, and what is true of one of these cells is applicable to all. We have seen how important it was to the healthy performance of all its functions that the equilibrium between the vital and chemical forces should be strictly maintained. Now, let us suppose for a moment that in one or more of these infinitesimal cells, situated in some obscure portion of the lungs, from some cause, of which there might be many, the vital force by which it is governed becomes impaired but not destroyed. The inevitable consequence of such an impairment is a perversion of its function. That function may be secretion and reproduction or excretion; but whatever it may be, it is perverted, its motion is changed, and from developing natural products it begins to develop unnatural products. Now bringing to bear upon this point the law long since proposed by La Place and Bertholet, and since most ably adopted and proved by

Leibig, that "*a molecule set in motion by any power can impart its own motion to another molecule with which it may be in contact;*" and we have a clear explanation of the means by which the impairment and perversion of the function of a single cell may be communicated to many; and instead of the unnatural products of a single cell we may have the unnatural products of many. These products may assume the form of tubercle or any of the other unnatural deposits so often found in the body as circumstances may govern. Having once established the means by which such a deposit may be formed, and such a morbid action established, we can easily understand how the circulating medium may from time to time float off loose molecules of this perverted material and afterwards lodge them in some of the minute capillaries of other tissues, where, according to the same law they would establish the form of perverted action peculiar to themselves; and in this way the disease would soon become general, or in other words constitutional, and all the concomitants of tubercular consumption rapidly develop themselves.

Causes.—In considering the causes of this disease, it must now be evident that any thing calculated to impair the vital force either generally or locally, directly or indirectly, is entitled to rank as a cause of this disease. These may be divided into intrinsic and extrinsic. The intrinsic, including all those causes acting from within the body, while the extrinsic consist of all those debilitating influences acting from without. Among the intrinsic causes probably no one is so general or so difficult to overcome as hereditary taint. In some of these cases the chemical and vital forces that unite the elements of the cell growth of organs seem to be so delicate that the slightest external influence may disturb their equilibrium and give rise to that perverted function which once established, according to the laws of molecular motion, is almost certain soon to become general; and it is in these cases where these two great forces are so delicately balanced that this perverted function being once established is sure to spread with the greatest violence and activity. In other cases it would seem that the ultimate cells and tissues had been endowed with a vital force capable of conducting their functional revolutions for a certain length of time, when, having finally exhausted its power, chemical forces begin to gain the ascendancy, accompa-

nied by those morbid products of perverted function which speedily extend and increase until the whole or a large part of the organ is destroyed. Either of these conditions may be transmitted from parent to offspring on the principle that like produces like. I would not be understood to ignore the effects of a morbid product accumulating in a tissue and thereby acting as a foreign substance, developing inflammation and all its untoward results. These things would be referred to and discussed more extensively, but time and space will not permit.

The existence of the disease in the parent is not always essential in order for its transmission from parent to child. There are a great many diseases which so impair the vital forces in the parent as to render them incapable of reproducing offspring in whom these vital forces exist in their normal extent and activity. Among these may be mentioned secondary syphilis. The injurious effects of long courses of mercury; long continued disease of the digestive organs, &c., &c.

In short, any thing which impairs the vigor of the vital force acting in the ultimate tissues, renders them unqualified to reproduce like tissues in which this vital force exists in its wonted equilibrium. The explanation of these phenomena becomes plain and easy when viewed in this light, whereas in any other they must always remain a source of doubt, darkness and uncertainty.

Among the remaining intrinsic causes, may be mentioned all other diseases that have been or may be operating in the system and are calculated to impair or overcome the vital force acting in certain tissues, and thereby establish a perverted action in them.

Passing then to the extrinsic causes, they may be defined to consist of all those outward circumstances which, acting upon the individual either locally or generally, are calculated to diminish and weaken the vital forces which govern the functions of the ultimate tissues, thereby perverting their function and developing morbid plastic deposits. Among these, may be enumerated: impure air, unwholesome diet, deficient or excessive exercise, improper clothing, want of cleanliness, intemperance and exposure. It would be extending this article to too great a length if we were to undertake to explain here the manner in which all these circum-

stances operate to produce these results, although it would be an interesting enquiry.

Varieties.—It will be sufficient for our present purpose to divide tuberculosis into two distinct varieties, *i. e.*, hereditary and acquired. All the other divisions made by authors may be included under these heads: they are generally peculiarities and modifications produced by local circumstances, variations of constitution, occupation, &c., rather than distinct varieties of the disease.

Treatment.—The subject of treatment may be considered under three distinct divisions; namely, prophylactic, curative, and palliative.

In accordance with the views heretofore taken of the pathology of this disease, it will be evident, that our object in the prophylactic treatment will be to maintain and husband that vital force which we have seen is so essential to the ultimate tissues in the performance of their normal functions, thus avoiding the deposit of the first unnatural product in the tissues, and thereby breaking the first link in the chain of morbid action. And here it may be remarked, and almost every practical physician will bear me out in the assertion, that in our prophylactic treatment rests almost all the success that has ever attended the efforts of medical men. The importance then of giving it the most careful thought and early attention cannot be too highly estimated. Unfortunately, our limits will not permit us to dwell upon the subject of treatment; we will endeavor, however, to point out some of the landmarks by which we are to be governed. When we are called upon to take charge of an individual in whom we have reason to fear an attack of tuberculosis, our first duty to him is to surround him by all the circumstances that experience has shown to be most conducive to the highest amount of physical health, thereby affording the organization vital power to resist the action of those debilitating influences from within, or from without, that may be tending to disturb the just equilibrium between the vital and chemical forces. This is to be accomplished by the most careful attention to climate, air, exercise, diet, bathing, frictions, occupation, mental condition, and all those other hygienic rules and regulations which are so justly regarded as conducive to a high degree of physical health. A dry equitable climate would at this

time be most advisable. Change of scenery and moderate exercise in the pure open air must be regarded as most important measures. A moderate amount of exercise, so taken as not to exhaust the system, and yet secure to all the organs a decided action, should be taken daily. The diet should be nourishing but of easy digestion, so as not to overtax the powers of the digestive organs. The meals should be taken at regular hours. Avoid gross meats, especially swine's flesh. A glass of generous wine, or ale, will often be found of great benefit after eating. The sponge or shower-bath daily, followed by active friction with a coarse towel, are almost always decidedly beneficial; care should be taken that the body does not become chilled by keeping it wet for too long a time. A moderate and pleasant occupation affords exercise and promotes a cheerful disposition, which is most desirable in cases of this nature. All depressing mental emotions and unnatural excitements must be avoided. The clothing must be regulated so as not to be too warm, and yet to afford sufficient protection. But we cannot permit ourselves to enter further into these details. The judgment and knowledge of the physician must aid him in applying this treatment to individual cases, according to age and circumstances.

Curative Treatment.—We have little to offer on the subject of the cure of tubercular consumption. We frankly confess that we know of no specific remedy for this disease when the perverted action has once begun. Many medicines have been proclaimed at different ages of the world as specifics in this disease, but none of them have stood the test of observation and experience. According to the pathological views hereinbefore explained, and regarding the first link in the chain of morbid action as being a disturbance of the equilibrium of the chemical and vital forces in the ultimate molecular structure of the organ, thereby causing perverted action and morbid aspect,—it is evident that our object should be to arrest the progress and extension of this perverted action; to draw a line of demarcation between the diseased and healthy tissue; and, finally, to promote its elimination from the system. But how these things are to be accomplished remains for future labor, future thought, and future investigation, to determine; and whoever shall discover the means by which they may be brought about and health restored, shall weave a wreath

of unfading laurels to adorn his brow. Perhaps, in those remedies which have a tendency to arrest decomposition and decay, such as the empyreumatic oils, coffee, tea, and the various alcoholic preparations, valuable aids may be found. Although we know of no specific cure for consumption, we would not be understood as holding the position that recoveries do not sometimes take place. In cases where this disease had undoubtedly existed, such recoveries have been known; but such cases are the exception and not the rule, and probably owe the favorable change as much to the vital forces of the organization as to any remedial agents that have been administered.

Palliatives.—Although it is not yet in our power to specifically cure this disease, it is in our power to support and maintain the flagging powers of life, to relieve local complications that may arise in the course of the disease, and which if allowed to proceed unchecked would speedily bring about the fatal termination. We can alleviate our patient's sufferings, guard him against improper exposures or habits, and surround him by all the circumstances calculated to husband the vital forces, and postpone the fatal end. In this way, his life may be prolonged in comparative comfort often for many months or even years. The manner by which these things are to be accomplished, and the means to be employed, are numerous and varied. To discuss them here would be to extend this paper over many more pages and trespass too long upon your time and patience. Every judicious and enlightened practitioner is expected to understand them, and they are fully taught and explained in all the standard text books of the day. On some points, however, differences of opinion will arise, and it would have afforded me great pleasure to have entered into a detailed investigation of this interesting subject, especially in regard to the effects of climate and its proper application to the different stages of the disease.

We will conclude this essay, therefore, by once more calling your attention to what we must regard as the first link in the chain of morbid action. Here is where we meet the enemy face to face; and here is where, if ever we do succeed, the battle is to be won. Strike at the root! break the first link in the chain, and the victory is ours. Let physicians then direct their energies to this point. Let them search among the secret and hidden

things of nature for some talisman by which this first perverted function may be arrested and removed, and when it is found, we may truly cry *Eureka!*

PART II.

REVIEWS AND BIBLIOGRAPHS.

ARTICLE I.

Prize Essay: "To what Affections of the Lungs does Bronchitis give origin?" By DANIEL D. SLADE, M.D., of Boston.

To this essay was awarded the prize offered by the Massachusetts Medical Society. It is well written, and carefully compiled, presenting all the most recent investigations on the subject. The author does not "presume to offer any thing which does not already belong to science," but has carefully studied the writings of Laennec, Legendre and Bailey, Gairdner, and others, and has given a well digested *résumé* of their observations. The essay is confined almost entirely to the pathological conditions observed in the lungs—the symptoms of the diseases, both rational and physical, being only briefly noticed, and the therapeutics not at all. He describes, first, the appearances of bronchitis, the congestion of the mucous membrane, loss of epithelium, and the change in the character of the secretion. He next discusses the nature of post-natal atelectasis, or collapse of the air cells, and the causes which give rise to it, following the descriptions and explanations given by Legendre and Bailey, and by Dr. Gairdner, that it arises from plugs of mucus obstructing the bronchial tubes in such a manner as to allow free egress to the air contained within the vesicles, but to prevent its entering again with the inspiration. It occurs especially in debilitated children; the same condition however may be observed in the adult, and is not at all uncommon in those far advanced in life. Bronchitis often produces pneumonia both lobular and lobar. Abscesses sometimes form in the neighborhood of the bronchi, afterwards giving rise to dilatation of

these tubes. The author then passes to the secondary and more permanent lesions that result from bronchitis; atrophy from collapse, vesicular emphysema, obliteration and dilatation of the bronchi. In the first two, he follows closely the well-known descriptions of Dr. Gairdner, and is disposed to agree with him as to the mechanism by which emphysema is caused, viz., by the expansion of the air cells during inspiration, and after a shrinking of part of the lung from collapse, healing cavities, or other causes, has already occurred. He, finally, reviews the connection between bronchitis and spasmodic asthma and phthisis. Bronchitis, he says, "plays its part most frequently in the production of the former disease, or at least it is the exciting cause of the asthmatic paroxysm in the great proportion of cases." With regard to phthisis, after quoting the opinions of Louis, Andral, and Dr. J. Clark, and the statistics of Drs. Pollock, Leared, Briquet and Gellersted, he comes to the conclusion, "that the popular notion that tubercular phthisis is the common and direct result of bronchitis, or, in common parlance, of a "cold," is not founded upon fact, and that this affection is to be considered as a cause of phthisis *only when a predisposition exists.*" M.

ARTICLE II.

Sixth Registration Report of South Carolina. By R. W. GIBBES, Jr., M.D.

Every person who understands what registration means, can not fail to appreciate the great advantage of a systematic and accurate record of births, marriages and deaths, but so far, in this country, but few have given the subject any attention. If it be important to record the title to every piece of property, to note the changes in wealth and greatness of every community, surely it is equally necessary to note the births, marriages, and deaths of individuals composing that community and controlling that property. If it be beneficial and philanthropic for physicians to prevent as well as relieve sickness; to prolong the lives of mankind, and to promote the health and wealth of the community in which they live, it is desirable to have accurate statistics

for making medical and sanitary inquiries. This report has been compiled with great care and trouble, and furnishes much useful information. Among other things, it shows that the growth of population in South Carolina has been very slow compared with our western States, and that the rate of increase in the white population has steadily diminished since 1790, whilst that of slaves has proportionately increased, while the free colored has not materially changed. In 1790, the Palmetto State had 6.34 per cent. of the whole population of the Union, but in 1850 it had diminished to only 2.88 per cent. K.

ARTICLE III.

On Diphtheria. By EDWARD HEADLAM GREENHOW, M.D.,
*Fellow of the Royal College of Physicians; Physician to
the Western General Dispensary, and Lecturer on Public
Health at St. Thomas' Hospital. New York: Baillière
Brothers, 440 Broadway. 1861.*

This small volume, of one hundred and sixty pages octavo, is the republication of a recent English work, on this most interesting disease. The wide-spread prevalence of diphtheria in this country, the comparative novelty of the disease itself, and the great interest which attaches to it, on account of its extreme severity in many localities, all conspire to render this a most timely publication. Physicians throughout the country naturally desire to inform themselves as to the history, nature, and best method of managing a malady with which they are confessedly not familiar, growing out of the fact of its recent re-development. In this desire we know that many of our readers share, and it is therefore with pleasure that we call attention to it. The author has had ample opportunity of observing and studying the disease, both in public and private practice; and he has besides availed himself of all the means within his power of acquiring practical and reliable information from those who have been most extensively engaged in its treatment. It may, therefore, be regarded as a fair exponent of the present state of professional knowledge on the subject of diphtheria. In order that our readers who may wish to procure the work for themselves may have

an idea of its scope, we subjoin the captions of the twelve chapters into which it is divided. These are, 1st. Preliminary Observations—Definition of the Disease; 2d. Diphtheria in the Sixteenth, Seventeenth and Eighteenth Centuries; 3d. Diphtheria in the Nineteenth Century; 4th. As a Sporadic and Endemic Disease; 5th. Non-identity of Diphtheria and Scarlet Fever; 6th. Human and Brutal Diseases co-incident with Diphtheria—Relation of place, age, sex, and social position to the Epidemic; 7th. Communicability of Diphtheria; 8th. Symptoms—Description of the several grades and varieties of Diphtheria; 9th. Symptoms—Diphtheria on the Cutaneous Surface and Wounds—Occasional Concomitants of the Disease, and Manner of Death; 10th. Symptoms and Sequelæ of Diphtheria; 11th. Morbid Anatomy of Diphtheria, and 12th. Suggestions for Treatment.

As far as we have been enabled to examine the work, these subjects are clearly and intelligently treated of, and the author has collected much valuable information, and made many useful and practical suggestions. Those who wish to get the work can do so at a cost of *one dollar and twenty-five cents*, by applying to the publishers, whose address is given above.

ARTICLE IV.

Hessling & Kollmann's Atlas of General Animal Histology. Photographs from Nature. By JOSEPH ALBERT. 8vo. *Leipsic*, 1860, No. 1.—[Hessling & Kollmann, *Atlas der allg. thier. Gewebelehre. Nach der Natur photographist von Jos. Albert.*]

We have before us a work of an entirely novel character. The "Atlas of General Animal Histology," of which the first number has reached us, will illustrate objects of general anatomy by forty-two *photographic* pictures taken directly from the microscope by the well known artist of Munich, Albert, which are executed in the very best style. This is the first attempt to bring the photographic art into the service of science, and the advantage of this mode of illustration cannot be overestimated. We have been accustomed to receive the images of the microscope not as they really are, but as the observer recognized, understood,

explained them. All former drawings from the microscope, even the wood-cut copies of photographs, which we find in Draper's *Physiology*, etc., gave only that which the artist believed he saw; all contained the explanation of the image, as given by the microscopist; whereas, this new work furnishes the image as it presents itself to the eye of every one; we look, as it were, into the microscope ourselves in contemplating the picture, and are thus enabled to judge for ourselves, to form our own conceptions, and to make our own explanation of the object. Hessling and Kollmann's *Atlas* supplies in some measure the microscope to those who do not possess one, and furnishes the typical images of the most common objects to those who are in the habit of studying histology themselves, containing the elementary forms of animal tissues in truthful and natural representation.

Among the objects which the present number (eleven plates) elucidates, we must notice for their extreme beauty and distinctness especially the four plates of blood corpuscles (of man, bird, reptile and fish), a photograph of epithelial cells from the mouth, and two representations of bone corpuscles (from man and fish). The succeeding numbers, which are to be issued at an early day, will give us pictures of the cells of pus, lymph, connective tissue, of cartilage, nerve-fibres, and nerve-cells, etc.

The pictures themselves are (round, of course, like the field of vision in the microscope) about three inches in diameter, surrounded with a square black margin and pasted on large octavo leaves of thick white paper; at the bottom of which we find the name of the object and the magnifying power employed. The latter usually is 350 diam., in one instance only (in the present number) 850 diam.

The atlas will not be accompanied by any text, and the names of the objects at the bottom of each plate are in German, French, and English, so that the work is serviceable to scientific men in this country and England, as well as in Germany and France. The price, moreover, is exceedingly moderate (\$5.00—6.50 for the complete work), and renders it accessible to all. G. B.

ARTICLE V.

A Hand-book of Hospital Practice, or an Introduction to the Practical Study of Medicine at the bedside. By ROBERT D. LYONS, *Physician to Jervis street Hospital, Dublin, &c., &c.* Samuel S. & Wm. Wood, 389 Broadway, N. Y.

It is impossible to become an adept in any business or profession without much practical and methodical experience; and in medicine, where much of our knowledge can be gained only by personal observation and critical bedside examination, it is vain for us to expect to be judicious and successful practitioners unless we systematically, industriously, and perseveringly watch and study the cases under our charge during our hospital pupilage. We can never gain the necessary knowledge from books alone, nor from attendance upon hurried clinics, but must have immediate charge of the sick, be subject to the close supervision of learned and experienced men, and patiently watch and record every case of importance. If our medical education be conducted in this manner, we may commence practice with confidence and benefit both to our patients and ourselves; but if not, we will constantly meet with embarrassment and disappointment, and be of but little use to humanity or our profession.

With the view of directing clinical study and aiding the student in systematizing his knowledge and reducing it as far as practicable to a scientific system, the author has written this volume, which, though of necessity unattractive in style, contains much that is invaluable to the young practitioner, and of great importance to every medical man. It gives general directions for the clinical examination of patients; tells us what we must expect to find in the normal and abnormal state of every viscus of the body; what effects their derangement produce upon the whole system, and what the peculiar symptoms in each case signify and point to, whether in disease of the brain, lungs, heart, or whole economy; what we can learn by percussion and auscultation, and how each is to be practised; how to make and what is to be gained from an examination of the secretions and excretions. It also contains directions for making scientific post-mortem examina-

tions ; explains how this very necessary performance can be accomplished in an easy, cleanly, profitable and instructive manner, so as to determine the cause of death, and ascertain with accuracy the pathological lesions peculiar to each disease. In the appendix, we find correct rules for writing prescriptions in a classical manner, and also forms for recording cases. K.

PART III.

RECORD OF MEDICAL SCIENCE.

Cure of Cutaneous Diphtheria by Perchloride of Iron.

By ROBERT HUNTER SEMPLE, M.D.

The following case is doubly interesting, both as an example of the effect of a mustard-plaster on the skin, under the influence of a diphtheric epidemic, and as an example of the good effects of the internal and external use of perchloride of iron. A man, forty-two years of age, of a strong constitution, was seized, in November, 1859, with a subacute form of bronchitis, and as he became delirious in the course of the complaint, Dr. Noir, who was attending him, ordered mustard-plasters to the calves of the legs. The delirium ceased, but the mustard produced a vesication, which disturbed the patient all night. The next day Dr. Noir opened the vesicles without removing the epidermis, and a quantity of serum escaped, similar to that of blisters. There was great subsequent irritation however, and Dr. Noir, investigating the cause of the patient's sufferings, discovered, instead of vesicles, two enormous diphtheritic patches, one on each calf; these patches were of a greyish-white color, irregular and dry, sufficiently hard to give a sound when struck by a spatula, both surrounded by an erysipelatous areola, tending to enlarge, and more painful than the patches themselves. There were at the time several cases of diphtheria among children in the neighborhood. Dr. Noir cauterized all the areolæ with nitrate of silver, in order to prevent the disease from spreading; and he also ordered a draught to be taken, containing twenty drops of tincture of perchloride of iron at frequent intervals. The diphtheritic patches and the inflamed skin surrounding them were washed with a solution of iron. By this treatment, the progress of the disease was arrested and the pain was relieved, and after a few days a decided improvement was manifest. The diphtheritic patches were

gradually thrown off, and eventually two ulcers of a healthy appearance were left, which proceeded to cicatrization without any serious symptoms.—*Gazette des Hôpitaux*.—*Brit. & For. Med. Chir. Rev.*

On the Employment of Sulphate of Quinine and Veratria in Typhoid Fever. By Dr. Vogt.

Dr. Vogt has collected and tabulated a number of cases of typhoid fever treated by sulphate of quinine and by veratria, and although the cases treated by the latter alkaloid were few, he prefers it on the whole to quinine as a remedial agent. He regards both alkaloids as valuable in the treatment of typhoid fever, but thinks that they are useful in different stages or conditions of the disease. The action of veratria, he says, is more direct, causes no excitement, and proceeds especially from the spinal cord; that of quinine proceeds principally from the brain, and cannot be manifested in a short time without previous excitement. Hence veratria is to be preferred in all febrile diseases which show a rapid and impetuous progress. In typhoid fever it should be employed at the commencement, more particularly when the fever is very acute and the congestion in the head very active. In cases which are more slow in their progress, with a less intense febrile reaction, with hyperæmia more dependent on venous stagnation, and in the latter periods of the disease, when anæmia or adynamia predominates, then quinine is preferable. In some cases, both remedies may be employed, the veratria being administered first, and the quinine afterwards. The antipyretic power of veratria is greater than that of quinine; for, where the latter has failed, the former often succeeds in a very extraordinary degree. In the eruptive fevers, whenever their tendency is to a true inflammatory localization, or when this localization has already happened, veratria must be selected, from its singular efficacy in pneumonia and puerperal fevers with intense local inflammation. But if, on the contrary, the fever is idiopathic, and entails no local inflammation, quinine should be employed. The toxic action of quinine is more marked and more difficult to avoid than that of veratria. In order to attain to the antipyretic effects of quinine, it is necessary to administer the alkaloid till it produces the peculiar noises in the head, and although these noises are anticipated, they are the more worthy of attention, inasmuch as the vomiting produced by veratria is more frequently beneficial than injurious. Veratria, says Dr. Vogt, possesses, in typhoid fever, a power far superior to that of quinine in relieving the head, especially in the first stage of the disease. But if the

affection of the head depends upon venous congestion, quinine may succeed better than veratria. In a general manner it may be stated that veratria deserves the preference in many cases as an antipyretic; and as to the other indications for these two remedies, quinine ought to be preferred in marsh-fevers with a moderately rapid progress, and in other febrile diseases which have reached an advanced period, especially when anæmia and adynamia have already commenced, and especially when it is not essential to interrupt the febrile action in a shorter period.

[*Bulletin Général de Thérapeutique.*—*Ibid.*

On the Use of Ergot of Rye in the treatment of Retention of Urine from Paralysis of the Bladder. By Dr. ALLIER.

The faculty possessed by ergot of rye of producing uterine contraction suggested to Dr. Allier the idea of employing this agent in the treatment of certain forms of paralysis of the bladder; and M. Paul Guersant has subsequently demonstrated in his practice at the Bicêtre, that the ergot is really endowed with the property of exciting contraction of the bladder. He employed it not only in cases of retention of urine from simple paralysis of the bladder, but also in order to promote the expulsion of the detritus of calculi after lithotripsy. In order to ascertain the physiological effects of this substance, Dr. Allier took several times, fasting, one gramme divided into four doses; the results were a little heaviness of the head, and a slight feeling of intoxication similar to that produced by champagne. Sometimes there was a desire to make water more frequently than usual, almost always a kind of uneasiness in the pelvic organs, which prevented sleep; at other times, on the following night, there was a kind of involuntary jactitation and disturbed sleep, and the rhythm of the heart's pulsation was variable. Dr. Allier relates a number of cases treated by ergot of rye, and his general conclusions are as follows: In the first place, he finds that the innoxious character of the drug is fully established, although he administered it in large doses continued for a long time, and he is therefore induced to doubt the deleterious effects attributed to it by some writers, or rather he believes that there may be different kinds of ergot, some of which are poisonous and others not so. In four out of fourteen cases related, there was evident excitement of the generative organs, which could be attributed only to the use of the ergot, and nearly all the cases exhibited more or less alteration in the nervous system, the most constant effects being a kind of pleasing inebriation, itching of the skin, nausea, uneasiness in the lower limbs, slight convulsive movements, and especially ex-

citement of the contractility of the bladder when this function had been weakened or lost. The ergot appears especially to have a kind of mysterious predilection for the bladder, of the same nature as that which is admitted to exist in the case of the uterus, and quite as inexplicable; it is, in fact, a special and transient excitor of the nervous system, appearing to act more particularly upon the lumbar portion of the spinal cord and the hypogastric plexus of the sympathetic, which themselves react upon certain orders of muscles, and especially on those of the bladder. Dr. Allier does not agree with M. Bonjean in classing ergot among the opiates; for, according to the former physician, ergot never produces stupefaction, such as is observed in advanced drunkenness, or in opium-smoking, and opium-eating. The transient intoxication produced by ergot can only be compared to the effects of a glass of champagne. It may be admitted, however, that one of the principles of ergot, namely, *ergotine*, may present some analogy with opium in its stupefying power. Dr. Allier draws the following conclusions from his researches: Ergot overcomes retention of urine when it has not yielded to catheterism, and abridges the duration of those cases which would yield in time to the catheter. It has no efficacy in the treatment of retention caused by enlargement of the prostate. Paralysis of the bladder, resulting from cerebral hæmorrhage, yields rather easily to ergot; but this is not the case with paralysis of the limbs following apoplexy. Ergot is equally efficacious in vesical paralysis connected with an undetermined lesion of the nervous centres, but has no power over paralysis of the limbs dependent on the same lesion.—*Ibid.*

Chlorate of Potassa in Gonorrhœa.—The following is from the Med. & Surg. Reporter: "Dr. Irwin, U. S. A., stationed at Fort Buchanan, says, 'it may not be amiss to place on record my testimony in favor of the use of chlorate of potash as a therapeutic agent, which I have constantly used during the last two years in the treatment of gonorrhœa, both in my public and private practice, with the most gratifying results. I have found it to be such an admirable remedy that I seldom resort to any other in the treatment of urethral inflammation. My method of using it is as follows: one drachm of the salt dissolved in eight ounces of water, of which an injection is given every hour for twelve hours, at the end of which the discharge will have become changed and diminished, allowing the remedy to be gradually discontinued until the second or third day, when the disease will be generally found to have ceased. So efficacious has this remedy proved in my practice, that I seldom deem it necessary to give any other medicine, save a Seidlitz draught or a dose of Epsom salts.'"

Aromatic Sulphuric Acid in the Treatment of Tape-worm.

By B. DARRACH, M.D., Quincy, Ill.

Tænia has præëminently its fashionable remedies. Kousso, after being lauded as a certain cure, and sold at extravagant prices, has been laid aside, like many of its predecessors. Emulsion of pumpkin seeds, I apprehend, is destined to the same fate. I have seen it fail in a case, where a year before it had expelled twenty-four feet of the parasite, and where turpentine was subsequently used with success. Will the profession then pardon me if I bring another remedy to their notice, that it may have a trial which alone can test its value. I am indebted for the facts to my fellow-practitioner, Dr. Adams Nichols, and publish them with his concurrence.

"On the 5th of February last, the doctor was called to see Mr. P——, farmer, aged about thirty-five, native of this vicinity, and living a few miles from town. He had been suffering for three months with vague pains in different parts of the body; was debilitated and emaciated; had some cough; a slight expectoration, and obstinate constipation. When I saw him for the doctor on the 10th, he had the appearance of a phthisical patient. On Dr. Nichols' second visit, the patient exhibited a discharge from his bowels which had alarmed him; to use his own expression, 'his bowels were all coming away from him.' Upon inspection, the discharge was found to be a mass of tape-worm several feet in length. He was ordered aromatic sulphuric acid $\frac{3}{4}$ j., water Oiss; to drink of it as often as he could until he had used it all. On the third day he passed about a pint of the worm in fragments, and apparently partly digested. The dose was repeated on the fourth day as a precaution, but without expelling any more of the animal.

"Feb. 24th. Reported himself; bowels regular; cough gone; appetite good; gaining flesh, and no symptoms of the worm.

"Since the above date he has entirely regained his flesh and strength, and has perceived no indication of a return of the parasite."

The above remedy was brought to the doctor's notice in rather a singular manner, about thirty years ago, while practising on Cape Ann, Mass. An old woman sent for him one afternoon to visit her, and greeted him on his arrival with the announcement, "Doctor, I've got a tapeworm!" The doctor not finding any very satisfactory evidence of the presence of such a creature, tried to laugh her out of the idea, and left her. A few days after he was summoned again, when she told him—"Doctor, I've killed my tape-worm, and there he is!" showing a vessel half filled with the animal. On enquiry as to what killed it, she replied, "Well,

I felt him poking his nose up into my stomach again this morning, so I took a teaspoonful of elixir of vitriol. I thought that was the sourest thing I could find, and gave it to him for his breakfast." Subsequently, the doctor met with two other cases on Cape Ann, and profiting by his experience in the case of the old woman, treated them successfully with the acid, giving 3 j, in several ounces of water in the course of three or four hours.

A few years ago, in this city, Mrs. M——, a feeble woman, having kept her bed for five months, and at the time very low from a recent confinement, was surprised one morning by the passage of about five feet of tape-worm. Turpentine was administered for two days, without success. The acid, which had for the time been forgotten, was then given, three teaspoonsful in twenty-four hours, in sweetened water, when a long worm was expelled. The patient speedily regained her flesh and strength.

All of these cases, excepting the first, remained under observation for some years, without any return of the worm. In all, the discharged worm was in the same fragmentary and semi-digested state. Finally, the doctor says, the remedy has never failed with him.—*Amer. Jour. of the Med. Sciences.*

On the Therapeutical Use of the Oxalate of Cerium. By
CHAS LEE, M.D., House Physician to Blockley Hospital.

About a year since, Prof. Simpson of Edinburgh first called attention to the medical use of this preparation, heretofore rarely known, even in the chemist's laboratory. Presented under such high authority, it is not surprising that in a few months there should be made, both in Europe and America, numerous trials of its efficacy in different gastric affections. It was used by Prof. Simpson, so far as I can learn, only in the vomiting of pregnancy. (*Med. Times & Gaz.*, Sept., 1859.) But more recently it has proved useful in so much wider a field, that it promises to assume a permanent place among the mineral tonics, and, as such, some account of its therapeutic application may not prove uninteresting.

As regards the preparation itself, but few words are necessary. Its base, *cerium*, was first isolated by Berzelius and Hisinger, in 1809; together with lanthanum and didymium, it is obtained in considerable amount, as the mineral, *cerite*, from the mines of Sweden; and in this country it has been found, in the mineral allanite, in the interior of New York, and near Bethlehem, Pa.

From either of these sources it may be obtained by means of the mineral acids, and sulphuretted hydrogen at a high temperature, and finally precipitated by a solution of oxalic acid, as de-

scribed in an interesting paper by Mr. Meyer of New York. (*Amer. Jour. of Pharm.*, January, 1860.)

As thus obtained, the preparation is a white granular powder, an oxalate of the protoxide of cerium, inodorous and tasteless, insoluble in water, alcohol, and ether, but freely soluble in sulphuric acid, by which, as Mr. Mayer remarks, it may be distinguished from the other salts of the earths.

When I first began to use the cerium, I limited it to cases of advanced pregnancy, which had resisted all the ordinary remedies, such as creosote, hydrocyanic acid, ice, bismuth, etc. I specify *advanced* pregnancy; for in no case have I seen this troublesome symptom appear before the fourth month, without yielding to creosote, or prussic acid, or better still, minute doses of dilute sulphuric acid and brandy. The following cases will illustrate these remarks.

Case 1. Louisa M——, æt. 32, was admitted to the obstetrical ward, 16th March, 1860, in the eighth month of her second pregnancy. For three months past she has had at least two or three spells of vomiting every day, with utter distaste for food, and for some time has been under treatment in this city, without relief. When I first saw her, on April 3d, she was ordered to remain in bed, and to take one drop of creosote in emulsion every three hours; no improvement following in the next two days, this was changed for hydrocyanic acid, and subsequently for a mixture of dilute sulphuric acid and curaçoa.

After the lapse of a week, her condition was unchanged, with the exception of increased debility. All previous treatment was stopped, and a pill of two grains of oxalate of cerium was given every third hour. On that day she vomited once, two hours after taking the first pill; the following day she took the same amount before each meal, with no return of the vomiting. The cerium was continued one day more, and from this time until her confinement, April 22d, she enjoyed excellent health in every respect.

Case 2. Hannah S——, æt. 21, primipara, was admitted to the same ward, April 5th, apparently in good health. But in the course of a week, perhaps from restriction to the plain house diet, she was seized, on rising from bed, with severe vomiting, culminating in violent retching, and returning at frequent intervals on her making the slightest exertion. For three days she was treated with opium, creosote, and subnitrate of bismuth, and kept perfectly at rest; but as no change was perceptible by the 19th, I resorted to the oxalate of cerium, giving every second hour a powder containing one grain of the cerium with a few grains of sugar. After the third dose, her vomiting ceased entirely; but fearing a relapse, a similar powder was given before each meal for two days longer, with as complete success as in the former case.

Case 8. Charlotte L——, æt. 28, was admitted May 16th, in a state of extreme nervous prostration. She expected to be confined in six weeks, but during the last four months she had suffered from such incessant vomiting, as to keep her in daily dread of an abortion. In her former pregnancies the same thing had occurred, once to such an extent as to induce her to labor at the seventh month; and then, as now, the vomiting would begin without any assignable cause, both during the day and night. For many weeks, she had eaten only one meal a day, and was disgusted by the mere sight of food, which was sure to bring on vomiting. Her great nervous debility, and the apparently uncontrollable character of the emesis, induced me to prescribe the oxalate of cerium at once. She took at first two grains, and afterwards one grain every two hours during the day; but the first dose alone seemed necessary, for from that moment the vomiting never returned. The patient said it acted "like a charm," and until her child was born (at full term), her health remained excellent, and she felt quite as well as before her pregnancy.

Case 4. In this case, though similar to the foregoing, the cerium was less happy in producing a permanent effect. When administered it readily arrested the vomiting for a few hours, or during that day; and, by keeping the patient under its influence, to a slight extent, the emesis was held in check, until it gradually passed off entirely.

But, as I have remarked, the efficacy of oxalate of cerium appears by no means confined to the relief of vomiting in pregnant women. In the vomiting that often accompanies phthisis, in pyrosis, hysterical emesis, and the various dyspeptic conditions of the stomach, especially in atonic dyspepsia, I have found the effects of this remedy no less encouraging. In the following cases it was given to check the vomiting of phthisis.

Case 5. C. F——, æt. 58, was admitted to the phthisis ward about the end of March, 1860. He gained slowly in strength up to the middle of June, when he lost his appetite, and suffered from constant nausea and vomiting. This was always brought on by a severe spell of coughing, or by eating a single cracker, and the nausea remained even when the stomach was empty. Various remedies had been tried without relief, and on July 10th, he took, for the first time, one grain of cerium before each meal; he vomited once that evening, and once the following day, but thenceforward improved rapidly, in great measure regaining his appetite; and although the vomiting sometimes returned when the cerium was stopped, a few grains of the medicine always promptly arrested it.

Case 6. James S——, æt. 31, far advanced in phthisis, with slight vulvular disease, had the vomiting well marked when ad-

mitted, July 16th. He was extremely feeble, and could eat nothing; ordered Huxham's tincture and cod-liver oil, which only sickened him more. He was treated then with cerium, in doses of one grain every two hours; his vomiting ceased after the third dose, and during the ensuing four days that he was under treatment, his appetite was nearly restored; but no final report could be made of this case, as the patient was soon after removed from the hospital by his family.

Case 7. Conrad G——, æt. 20, entered the medical ward with inherited phthisis, enfeebled from night-sweats, loss of appetite, and occasional vomiting, greatly increased by violent coughing. On July 18th, I ordered him a grain of oxalate of cerium an hour before each meal; in two days he said he felt better than for many weeks; he no longer vomited; his appetite had returned, and, with his increasing strength, the night-sweats rapidly diminished in severity, and recurred only at long intervals.

Case 8—was one of hysterical amenorrhœa, characterized by violent convulsions, succeeded by gnawing pains in the stomach, with severe nausea and vomiting. I tried in vain to arrest this, and restore the patient's appetite by gastric sedatives, tonics, and nerve stimulants, but with no effect. The cerium was then prescribed in one grain doses, with which—suspecting worms in the alimentary canal—I combined four grains of santonine; this was given in every third hour, and by evening the vomiting and gnawing sensations in the stomach ceased, and, though they returned once or twice after subsequent convulsions, a few doses of the cerium invariably put a stop to the symptoms, as long as the case remained under my charge.

Finding the cerium so excellent in repressing vomiting, I tried its effects in fourteen cases of atonic dyspepsia, and uniformly with the same gratifying results. These cases were carefully selected, and only after an exact diagnosis was the cerium treatment adopted, for the benefit could not reasonably be expected where the dyspepsia was dependent on malignant, or other organic lesions. And here it is worthy of remark, that, whether in relieving the nausea, or simply restoring the appetite, the effect of the medicine was perceptible almost as quickly as the cases first quoted. The same point is emphasized in the paper of Professor Simpson, already referred to, and it was indeed this fact—the rapidity of its therapeutic action—that especially engaged my attention, and, after repeated experiments with this view, I was inclined to regard it as peculiarly characteristic of the cerium.

In reference to the view of its therapeutic nature expressed by Prof. Simpson, who considers it a sedative tonic, I think it just to state that I endeavored to test its validity in several cases of acute and sub-acute gastritis, both idiopathic and supervening on

debauch, or delirium tremens, but in none could I detect any amelioration of the symptoms. I make this remark with no disposition to impugn the opinion quoted, and only to record my experience so far as it extends; for, I have neither the inclination nor the data sufficient to build a theory upon the therapeutics of an agent so little known as the oxalate of cerium.

[*Amer. Jour. of the Med. Sciences.*

A Sketch of an Epidemic of Dengue or Breakbone Fever, as it prevailed in Wilmington, North Carolina, in the autumn of the year 1860. By JAMES H. DICKSON, M.D.

Synonyms: Dingee, Dunga, Dandy, Bouquet, Breakbone Fever.—In the foregoing barbarous nomenclature, the curious philologist will be apt to find his ingenuity puzzled and his industry baffled in his attempt to trace the origin of a word which has been adopted to designate a very marked and peculiar form of disease, without being furnished with that "*filum laberynthi*" which its history affords.

It certainly furnishes a rare instance of a word finding its way into scientific treatises from so humble an origin; for it carries with it the evidence of its negro parentage, not patent enough to be discovered by any ordinary process of word-hunting, and yet sufficiently obvious when the enquirer has been started on the proper track.

The West India negro gave it the name of Dandy fever, from the stiff gate which it caused its subjects to assume, when suddenly seized with it, as they sometimes were, when passing along the street. When it appeared in Cuba, this name, in undergoing the Spanish pronunciation, was changed into Dunga or Dengue, which it still retains.

This very unique and peculiar affection has never, so far as I have been able to learn, prevailed in this place before the occurrence of the epidemic of which I shall now endeavor to give some account.

It seems indeed to be an unfrequent visitor of any locality, rarely, if ever, appearing for two consecutive seasons in any place.

The first notice which we have of this form of fever, is in a paper by Dr. Jas. Mellis, giving an account of its prevalence in Calcutta in the year 1824. In the latter part of 1827 it made its appearance in the West India islands. In the spring of 1828, it broke out in New Orleans, and in the fall of the same year it prevailed in Charleston and Savannah. Papers descriptive of

the disease as it prevailed in the latter cities, have been published by Drs. S. H. Dickson and W. R. Waring.

It would thus seem to be a tropical or tropicoid disease, and yet if we can rely upon the correctness of the opinion which regards the so-called breakbone fever, which Dr. Rush describes as prevailing in the autumn of 1780, in the city of Philadelphia, as the disease in question, or the true Dengue, it would seem occasionally to transcend its native limits.

Dr. Rush describes the Philadelphia epidemic as a bilious remittent fever, to which the name of breakbone fever was popularly applied in consequence of the severity of the pains with which it was attended.

Not having at hand Dr. Rush's description of the disease, I am in some doubt whether to regard that instance as one of the genuine Dengue, or only as a form of remittent fever, with the usual spinal and neuralgic pains more than usually developed.

Such varieties of remittent fever are not very rare, but they must not be confounded with this very peculiar affection.

The genuine Dengue seems to be a complex malady, combining some or all of the characteristic features of our ordinary autumnal remittent fever, with very marked symptoms of rheumatism, together with, in many cases, an eruption, closely resembling in some instances urticaria, and in others a scarlatinous erythema. Occasionally, the eruption assumed a miliary, and in some instances a rubeolous appearance. In those instances in which the eruption did not show itself during the progress of the case, the occurrence of cutaneous desquamation at the close of the attack left no doubt as to its true character.

This form of fever seems to exhibit no very marked prodromata. In some rare instances it makes its approach insidiously, but for the most part it attacks with abrupt suddenness. A slight chilliness ordinarily ushers in a febrile paroxysm of greater or less severity, accompanied with headache, chiefly in the back of the head, and distressing pains in the loins and in the course of the large nerves in the lower extremities. The entire cerebro-spinal nervous system, as well as the peripheral extremities of the nerves, as in the great centres gave token of its pathological condition.

In some instances, the chill was of very marked intensity, and the febrile reaction in such cases was apt to be of corresponding severity. Restlessness and a sense of great debility are apt to be prominent attendant symptoms.

The pains in the limbs and joints, described as rheumatic, though for the most part uniform in their resemblance to that disease, were occasionally seemingly capricious in their character, attacking the smaller joints, and now and then the stomach and

bowels, giving the case in these features no slight resemblance to gout.

In our epidemic, an attack of Dengue was by no means uniform in its duration or its intensity. Indeed, it ran through every gradation from the mild ephemeron, scarcely requiring any treatment, to a grave form of fever of ten or twelve days' duration. A striking feature in most cases of any severity, was nausea and precordial distress. In some instances, the gastric irritability was a very prominent symptom, and one which, by its obstinate persistence, seriously embarrassed the treatment.

It is usual to ascribe the occurrence of this disease to epidemic influence, and in the present state of our knowledge it is perhaps impossible to assign it a more specific origin. This epidemic influence or occult cause would seem to have engrafted itself (in our epidemics) on the ordinary morbid cause of autumnal remittent fever, for the cases evidently partook largely of that character, though in some of its features it was almost protean; for, we might, with strict propriety, characterize one case as rheumatic, another as gout, another as scarlatinous, &c. It seemed to be no respecter of age or sex, all classes being equally liable to be attacked by it.

A very small fatality seems to be a notable characteristic of the Dengue; for though many suffered severely and some were seriously threatened, I believe no fatal case occurred.

Some of the writers who have given us a description of this form of fever, think that they have discovered in it a resemblance to the yellow fever, in the circumstance of its having but one paroxysm, with a long and delusive intermission, followed in the one case by a return of a fatal exacerbation, and in the other by a febrile paroxysm, which undergoes solution by the occurrence of a cutaneous exanthem. I am constrained, however, to regard this as a forced and painful analogy. At any rate, such a form of the disease was not observed in the epidemic which I am endeavoring to sketch in this paper. Instead of the peculiar paroxysmal form of yellow fever, this epidemic assumed the garb of *bilious remittent*, with daily exacerbations and remissions. Its want of fatality, too, is a feature which separates it widely from yellow fever, and the extinction by the occurrence of frost is equally characteristic of bilious and yellow fever.

The most probable conclusion from all our observations and comparisons, would seem to be, that the Dengue is protean in its phases, and "*sui generis*" in its nature.

Sequelæ.—A very striking and somewhat protracted debility was not an unfrequent sequel of the disease. In some instances, among children, a paralysis in the lower extremities occurred, and was of considerable duration; but I believe this serious sequel of the malady has not been permanent in any instance. Dr. W.

G. Thomas informs me that several cases of this kind fell under his observation, all which have recovered or are convalescing. The occurrence of such a sequel of the disease as this, indicates that the nervous centres bear very largely the onus of the disease, and exhibits an intensity of action of the morbid cause far exceeding the action of the cause of most other forms of fever upon the spinal axis. When paralysis occurs as a result of convulsive remittent fever in children, it almost invariably assumes the form of hemiplegia, and is generally of very transient duration.

Treatment.—Many of the milder cases were treated by the exhibition of a mild aperient and a sudorific anodyne. The severer cases seemed to call for the treatment which has been found needful and appropriate in our ordinary form of bilious fever. A mercurial cathartic (generally a pill of mass. hydrarg.) followed by a saline aperient, or a dose of calcined magnesia, was administered at the invasion of the attack. This was followed by the use of sulph. quinine, with or without the addition of an opiate as circumstances seemed to indicate.

In the large majority of cases, the opiate was found indispensable; for in by far the larger proportion of the cases, the spinal and articular pains were decidedly pronounced and called loudly for their administration. Diffusible stimuli were found useful in some cases in which unusual debility and prostration occurred, but the great mass of the cases were conducted to a satisfactory convalescence by the use of mild tonics.—*N. C. Med. Jour.*

Uva Ursi in certain Cases of extremely Slow Labor.

Dr. A. Gauchet has proposed and employed the *uva ursi* in certain cases of tedious labors which are usually treated by ergot of rye. He calls attention to the dangerous consequences which sometimes follow the employment of the latter drug, and thinks that the *uva ursi* will be found equally useful, and at the same time less violent in its operation. He relates a case of tedious labor in which was administered *uva ursi*, four drachms of the leaves being infused in a pint of water, a cupful of the infusion being given every half hour. The effect of the medicine was to increase the force and frequency of the uterine contractions, and the labor terminated a few hours after the first dose had been given. Dr. Gauchet gives another case of imperfect and irregular contraction of the uterus after labor, in which case the *uva ursi* seems to have had the effect of causing regular contraction of the organ, and the patient recovered without any bad symptom. Dr. Gauchet has also tried this remedy in nine cases of tedious labor, all of which terminated successfully, and he therefore believes that this new plan deserves the attention of practitioners.—*Brit. & For. Med. Chir. Review*,—from *Bull. Gen. de Therap.*—*Savannah Medical Journal.*

Digitalis in the Treatment of Mania a Potu. By G. C.
CATLETT, M.D.

The experience of the physicians of this city (St. Joseph, Mo.,) so far as my knowledge extends in the treatment of mania a potu, has been very unsatisfactory. Most of the attacks, assuming a remarkable acute form, with great violence of delirium, furious mania, and persistent mental aberrations, have generally resisted the opium and stimulating as well as all of the former established methods of treatment for this unfortunate class of sufferers.

So great has been the mortality from this disease during the last four or five years, notwithstanding we have attempted to discriminate between the chronic and the acute forms, that we have become apprehensive that we have not been treating alcoholic poison. Indeed so general has become the impression that the various alcoholic drinks, generally used, contain a foreign poison, that those who are in the habit of becoming intoxicated are significantly said to have taken passage on the strychnine line for an unknown destination. While the symptoms of the numerous cases that have come under my observation do not in the slightest resemble those from the poison of strychnia, yet the great apparent difference in the character of the symptoms as well as in the result of the disease—produced by excessive use of alcohol—at the present and former periods, that it would very naturally create apprehension and strike terror to the spiritually infatuated.

There have been a few persons, who, by a prolonged debauch, have induced inflammation of the mucous membrane of the stomach, or at least such a degree of irritability that a continuation of indulgence was impossible, as nothing introduced into it would be retained; soon therefore, from the withdrawal of the stimulus, delirium tremens would supervene, characterized by intense hallucinations, great tremulousness, incapacity to sleep, irritability of stomach, tender epigastrium, and deficiency of the secretions. Counter irritation to the epigastrium, a mercurial cathartic, stimulants judiciously administered (I prefer tinct. serpentaria; and tinct. valerian, equal proportions), and morphia *pro re nata*, will generally in my hands relieve such cases. But that form of this disease that is produced by the constant daily use of alcohol long continued, poisoning the blood and resulting in acute mania, is the fatal form, or properly *mania a potu*. In relation to this form of the disease Prof. Stone of New Orleans says:

“Brain fever and apoplexy are terms often kindly substituted as being more respectable; but names do not alter facts. *Mania a potu* usually occurs with the robust who habitually use alcoholic stimulants, but not to any great excess, except upon occa-

sions ; and when they are carried to a certain extent, a necessity for their continuance is created, and their excessive use can not, or will not, be resisted until the stomach gives way and finally rejects them. During this process, the mucous membrane becomes engorged, the digestion, and finally the appetite, entirely fail, and the patient is sustained for some days after by stimulants alone, until furious delirium sets in.

"This madness is not due to the stoppage of an accustomed stimulant, for it often sets in while the subject is in the full use of it, but it is plainly due to alcoholic poison and the absence of proper nutritive matter in the blood. I think I may add another cause which has often something to do in causing the delirium, and certainly much to do in causing death, under some modes of treatment, and that is suppressed excretions. So long as the stomach is intact, and the appetite and digestion good, an immense quantity of stimulant may be disposed of without serious immediate consequences ; but when the organs, finally, from constant excitation, become engorged, nutrition ceases, and the alcohol is retained more in the blood, instead of being carried off by excretions, and a wild delirium soon follows.

"It is plain, under these circumstances, that the indications are to establish the excretions, disgorge the system of the alcoholic poison, and to introduce proper nutriment. The first two are accomplished by one and the same means. The stomach is generally irritable ; at least, there is frequent vomiting ; but it is owing to the accumulation in the stomach of morbid secretion, rather than from inflammation or even irritation ; for calomel in small doses, frequently repeated, arrests it with great certainty. If the subject is governable, and will take medicine willingly, calomel should be given in two or three grain doses every hour, or oftener if the case is urgent, until fifteen or twenty grains are given ; if medicine has to be given by force, it is best to give a full dose at once ; and this is the better, for in the worst cases the stomach is not nauseated, and the sedative effect of a large dose of calomel calms the nervous excitement, and at the same time produces the appropriate effect upon the excretory organs and mucous coat of the stomach and bowels. It requires some hours for this effect to be produced, and it is improper to give any thing to promote its action upon the bowels under ten or twelve hours, and I think even a longer time would be better, if the case is not urgent. Small and frequently repeated doses of saline medicine are the best, after the calomel (sulphate of magnesia is best), which promotes the excretions, disgorges the stomach and bowels, and clears the system of its alcoholic poison, to its great relief. An active cathartic may afford some relief, but the system is not so well disgorged by it ; more or less serum from the blood is carried off, causing weakness ; while, in the

other process, by giving time for the action of the calomel, and then promoting it by gentle but continued means, the organs exercise a selection in excreting, and thereby a large amount of effete matter is discharged, and the patient feels the stronger for it, being freed from an incubus that was weighing it down, and producing apparent exhaustion. After this process, we should lose no time in introducing nutriment, and for this purpose milk is almost universally applicable; and, as the mucous membrane of the stomach seems to be denuded of its epithelium, the addition of lime water renders it particularly grateful and soothing. Patients in this condition generally loathe animal substances, but milk is almost always grateful to the taste, and is particularly appropriate, for it furnishes the most innocent solid for the bowels, that have been long deprived of their wholesome stimulus. If it should happen that a patient could not take milk, well-boiled cornmeal gruel is the next best diet most likely to be relished; and, for something more substantial, strong well-seasoned broth, frozen, will be the most likely to agree.

“In all acute cases, alcoholic stimulants should be withheld, for they act like poison, and will often bring back delirium. Should stimulants be thought necessary, (and it is not often really necessary,) the carbonate of ammonia, or the aromatic spirits of ammonia are preferable; or, it may be proper, in some cases, to allow malt liquor. Opium, in all forms, should be prohibited, until the system is relieved of its alcohol, and even then I find it can generally be omitted; and when it can be, the patient recovers sooner and better. The patient is not expected to sleep well; but if the blood is renewed by its appropriate nutriment, natural sleep will soon follow.

“Occasionally, when previous to the debauch which immediately caused the mania, a free use of stimulants had been indulged in for some time, we have an exalted state of the nervous system, attended with hallucinations and sleeplessness, which require special attention. Potent stimulants operate badly, and opium alone does not operate well, though in large doses sleep may be forced, though not without some risk, in some cases, to the brain; but equal parts of morphia and tart. antimony, given in small and repeated doses, will soon calm the nervous system and induce sleep without injury either to the brain or stomach.

There is nothing that cools off the heated imagination in these cases like nauseating doses of tart. antimony, and opium in some form may be added, if it is thought necessary. The too general opinion that sleep is the all-important thing in this disease has led to fatal errors in treatment. Opium, given freely, as it often and very generally is, while the blood is charged with alcohol, produces a very unfavorable effect upon the nervous system, and

tends to check the excretions, which are already diminished, and the patient, without being narcotized, often goes into a stupid state resembling the effects of uremic poison; and if about one half (about the usual proportion), by the vigor of their constitutions, weather it, in spite of all the poisons imposed upon them, they recover slowly, and their organs are left in a bad condition."

We make this lengthy extract from Prof. Stone's communication on this subject, because he makes the important distinction between delirium tremens and *mania a potu*, and in his usual clear manner points out the rational treatment in the two forms of the affection: these views, we think, should be more thoroughly impressed upon the profession; notwithstanding, we are satisfied that the difference in the two forms of alcoholic poison is clear; the treatment of Dr. Stone is the rational treatment. Yet the *mania a potu* that has occurred in this city for the last few years, has been remarkably fatal, and all methods of treatment very unsatisfactory.

Therefore, I determined to try the tinct. digitalis in large doses—recently, two cases presented an opportunity. The first a man, the second a woman. A description and treatment of one case will describe both in all essential particulars. Mr. ———, after a debauch of several weeks, and while yet stimulated to as great a degree as all the varieties of alcoholic drinks could produce; in attempting to light a segar, fell upon the floor in the most frightful convulsions, raving, and foaming at the mouth, and mutilating his lips, tongue, hands, and arms with his teeth. In half an hour after this convulsion he was furiously delirious, recognizing no one, muttering his imaginary fears, and now and then making fearful struggles to escape from his bed; his face almost livid; eyes deeply injected, and eyelids greatly swollen; pulse one hundred and sixty, weak and thread-like.

In the interval of the convulsions, and before my arrival, half a grain of morphia had been administered to him. I immediately administered five grains of ipecac. and two grains of tart. emetic; repeated it every fifteen or twenty minutes, until he had ejected every thing from his stomach. This occupied several hours when his symptoms were not in the slightest improved. I then determined to watch the action of the digitalis, and commenced by administering a large teaspoonful every half hour. The first dose improved his pulse—it diminished in frequency and increased in volume. The second dose lessened his ravings and made a more palpable improvement in his pulse. The third dose was increased one half, when all of his symptoms in one hour were manifestly improving. I then increased the dose and lengthened the time of administration, in about seven hours from the taking of the first dose; his pulse was now full slow and regular; his delirium had entirely vanished and he was sleeping, though interruptedly,

now and then disturbed by his hallucinations. I then continued the tinct. digitalis in smaller doses, and gave a mercurial cathartic; his sleep became sound and tranquil; he awoke in about six hours, sane in mind, and almost well in body. The only remaining vestige of disease was extreme nervousness. I then prescribed tinct. valerian and compound tinct. of cinchona, in equal quantities.

The second case was almost as severe as the first and was treated in like manner and resulted as favorably. If digitalis acts by sedation, will not veratria be a more efficient remedy in *mania a potu*?

[*St. Joseph (Mo.) Med. Jour.*

On Epidemic Dysentery. By Prof. TROUSSEAU.

The year 1859 was remarkable in France for the prevalence of a terrible epidemic of dysentery. While in former years, the affection has been observed only in circumscribed localities, it prevailed during the past year almost universally. Paris, too, which has perhaps been exempted from epidemic dysentery for a century, has had, on the present occasion, to pay a large tribute. Commencing towards the end of July, the epidemic attained its maximum in September, undergoing a notable diminution in intensity towards the end of October. Of all epidemic diseases, dysentery is the most murderous—typhoid fever, cholera, diphtheria, variolæ, and scarlatina being but as child's play compared with it. These affections prevail only accidentally, while dysentery decimates whole populations, returning at certain fixed epochs, as every three years, for example. Desgenettes declared that it killed more soldiers than the enemy's cannon did between the years 1172 and 1815. The etiological circumstances of the invasion of an epidemic may be quite inappreciable. Thus, at Tours, there are two barracks placed in identical hygienic conditions, and yet, during thirty years, it has always been the cavalry barracks in which dysentery has prevailed epidemically. The reputed effects of the excessive use of fruits in generating the disease is very doubtful, seeing that it sometimes rages when fruits are very scarce, as in 1859, while it may not be met with when they were in excessive abundance, as in 1858.

Passing by M. Trousseau's description of the disease, we come to his account of the treatment. His right to speak with some authority upon this point, is derived from the fact of his having witnessed four epidemics of the disease at Tours, Versailles, and Paris, during which the victims were either young and vigorous soldiers, aged men and women, or young children. Moreover, as

reporter on Epidemics to the Academy, he has to peruse the accounts of the various epidemics which appear throughout France. Some thirty or forty years since the traditions of the former age were abandoned, Broussais sweeping away the whole of the empirical modes of treatment in favor of his doctrines. In fact, with an inflammation so violent in view, it was then difficult not to give in to them; and the antiphlogistic treatment was put freely into force, and when unsuccessful, this was believed to be because it had not been carried far enough. In 1823 or 1824, however, M. Bretonneau, imbued with the medical doctrines of Stahl and Sydenham, set on foot a re-action against the doctrines of Broussais, by resorting to a substitutive mode of treatment. He gave an ounce of the sulphate of soda internally, and administered the same dose in a very copious enema, once or twice a day, continuing the practice as long as the stools remain bloody. As soon as they became bilious and serous, the sulphate was only given once a day, then every other day, and afterwards at still rarer intervals. In 1828 or 1829, M. Trousseau published an account of an epidemic treated with success in this manner. In 1842, an epidemic occurring in the garrison at Versailles was similarly treated, but with less marked success however, at all events, the military surgeons in attendance—almost all pupils of Broussais—agreed that the sulphate of soda was preferable to blood-letting. Unanimity in favor of neutral salts, of one kind or another, has also nearly prevailed in the reports addressed to the Academy from all parts of France. Frequent failures have undoubtedly occurred, but, in general, when advice is sought early, considerable and extremely rapid success is the result. Induced by the success of the calomel treatment employed by the English at Gibraltar, M. Trousseau has several times put it into force, and frequently with good effect in severe cases of dysentery, occurring, however, sporadically. He still resorts to it when the weather is very hot, but in cold and wet seasons he has found salivation and other ill consequences result from its employment. In children, too, who can only be got to take the sulphate of soda with the greatest difficulty, he prefers giving calomel. Ipecacuanha, which was so much in vogue during the last century, is now seldom employed. Opium is one of the sovereign resources of the *materia medica*, and is perhaps the pharmaceutical substance with which most harm may be effected. It is in incessant use, and is strangely abused, being, in M. Pidoux's happy phrase, the "knout of the therapist." With it every patient who complains or suffers is fustigated. In vain may you try the rational procedures consecrated by usage, and in vain do you appeal to your intelligence and your experience—all goes for nothing—pain is present, and the indication which dominates all others is to assuage such pain, for which opium must be prescribed. With

such logic as this we make but a bad business of it, or may engage in a very perilous work. A distribution of opiates with easy compliance is the mark of an impatient and ignorant practitioner. It is a very convenient procedure, and one to which every capacity is competent, which consists in "drying up the intestinal canal" by laudanum in a case of diarrhœa, and in roughly imposing silence upon the symptom pain in a case of dysentery attended with horrible tormina. "I do not pretend to say that, after having put into force the evacuant treatment, that we must never, when the patient is suffering cruelly, temper his pains by a few drops of laudanum, but I entirely object to the practitioner at once drying up the intestinal canal (for this is the aim) in a case of diarrhœa or dysentery. Let him not meddle with opium except with cautious reserve, or he will be the cause of the typhoid symptoms, which will soon make their appearance." After passing in review the various other means of treatment, to which he does not seem to attach much importance, M. Trousseau adds, that all these means will be of little avail if not adopted prior to the occurrence of important pathological changes. Otherwise, every effort will be paralyzed, and no means will avail against the horrible ravages of an epidemic. In conclusion, above all things, let the condition of the diet be attended to, for this is of vital consequence. Insist that two, three, or even four quantities of soup (*potage*) be taken daily, and prescribe feculent drinks, as barley and rice waters. In all the comparative trials which have been made of treating dysentery by rigorous abstinence, or by allowing aliment in wise moderation, advantage has attended the latter procedure.—*Gaz. des Hôp.—Maryland & Virginia Med. Jour.*

Finger-Nail Signs.—In going round the wards of the Charité with M. Beau, a novice will be not a little puzzled at seeing him scrutinize closely the finger-nails of each newly admitted patient, telling him occasionally, after a few moments' examination of his cuticular appendage: "My friend, you had a bad illness so many months ago, a very severe illness that pulled you down a good deal; and then you had a relapse," and so on. This sort of inverted palmistry puzzled me sorely at first, and I confess that even the explanation, when given, left me very sceptical as to the infallibility of this retrospective fortune telling. Nevertheless, although I do not believe in Hume, the spirit-medium, any more than in Hahneman and his microdosic followers, I do believe in this sign of the past as indicated by the nails. If you look at the fingers of a man who had typhus fever three months ago, let us say, you will find on the nails, towards

their centre (at that interval of time,) a transverse furrow, deep and well-marked, coinciding with the moment when the check in their nutrition occurred—the depth of the depression being in proportion to the severity of the illness, its breadth with the duration; and the several consecutive relapses (if such occurred) being each notched on the ungual appendices as on so many tally-sticks. Few men know that they have the past history of their own cases so thoroughly at their fingers' end.

[*London Lancet.*—*Savannah Med. Jour.*

THE HOT SPRINGS OF ARKANSAS.

Of the Hot Springs, there are some fifty-four distinctly recognizable, besides a considerable number in the bed of the creek. With one exception, their temperature ranges from 120° to 148° of Fah., and their composition is nearly the same. The exception is a warm spring (temperature 100°) discovered a year ago on the bank of the creek beneath the others. It has a strong odor and taste of sulphur, and is believed to have considerable virtues.

The quantity of water discharged by the various hot springs is estimated at 350 gallons per minute (one spring affording sixty gallons), or, say about 500,000 gallons per diem.

The analysis of the water is as follows (by Prof. Owen, State Geologist, Arkansas):

1½ (one and a half) gallons of water contain—

Of silica, with sulphate of lime	1.04 grains.
Carb. of lime, 1.68, and bi-carb. of lime	2.04 “
Carbonate of magnesia	0.326 “
Bi-carb. of magnesia	0.05 “
Sulph. of lime, dissolved in water	0.85 “
Chloride of potassium	0.05 “
Chloride of sodium	2.18 “
Oxide of iron, with a little alumina	0.133 “
Dry powder (in solution)	1.16 “

The average attendance of visitors this spring and summer has been about four hundred, chiefly of persons afflicted with rheumatism, neuralgia, paralysis, dyspepsia, mercurial affections and syphilis. Rheumatism is the most frequent of these.

The baths are taken according to the custom of the place, without immediate medical supervision. Small wooden bath-houses are fitted over the creek, and close to the precipitous edge of the hill. Wooden reservoirs retain the water, which they receive

through wooden troughs, until it is sufficiently cooled to be borne : it is then dropped in a stream of about an inch in diameter, from a height of nine or ten feet, upon the affected part, or the body generally (the time, according to the patient's power of endurance), and is received into a large wooden tub used for the plunge bath. A small chamber adjoining receives the steam from the constant flow of water, through wooden strips on which he stands, and drinking copious draughts of "hot and hot" in the meanwhile ; the patient endures the vapor for five or ten minutes without any apparatus for breathing of fresh air, an occasional protrusion of the nose at the door being necessary ; after which, more drinking of "hot and hot," and to bed, to sweat profusely under blankets from half an hour to two. This, once or twice a day, and the frequent drinking fresh hot during the day, other medicines being laid aside. This is what custom prescribes.

A. J. WRIGHT, Esq.

[*N. O. Med. & Surg. Jour.*—*Boston Med. Jour.*

GOUTY CONCRETIONS IN THE EAR.

Concretions, occupying the lobe of the ear, within the helix, in the shape of small round prominences, under the skin, have often been observed in gouty persons, *i. e.*, in subjects presenting manifestations of the lithic diathesis. Left to themselves, these concretions are sometimes spontaneously eliminated without the interposition of any inflammatory action, and leave a slight scar behind.

This is not a new disease. English practitioners, who have more frequent opportunities than ourselves of studying gout, have already observed them. Garrod asserts that they are to be met with in half the cases, and even that their appearance sometimes precedes the other manifestations of the morbid diathesis. This would therefore be a very valuable element in the diagnosis of incipient gouty affections. Mr. Charcot has observed but six individuals affected with gout, in consequence of the rarity of this disease in hospitals ; of these six patients, three presented the concretions we have just noticed. Extracted by means of a small incision, they displayed the aspect of a plaster-like matter, constituted by hard crystals. If they are analyzed, their chemical composition is found to be that of articular tophus ; the addition of acetic acid causes the deposition of uric acid, in very apparent crystals.

[*Med. & Va. Med. Jour.*

THE LOCAL TREATMENT OF DIPHTHERIA.

The *Union Medicale* has recently published two letters from MM. Loiseau and Trousseau on the use of tannin and alum locally in the treatment of pharyngo-laryngeal diphtheria.

M. Loiseau, considering the false membranes, in all cases, to be but consequences of diphtheria, and, with the exception of croup, rather useful than injurious, provided their putrefaction be prevented, again lays stress upon the beneficial action of styptics, and especially tannin; these seem to convert the morbid secretions into an imputrescible epidermis, which affords protection to the denuded surfaces and promotes their cicatrization. M. Loiseau performs insufflation of alum five or six times a day, and of pure tannin, equally often; he states that a cure may thus be effected in three or four days, on the same principle which M. Trousseau adopted in his practice in 1828. A quotation from an article published on the subject in 1833, by M. Trousseau in the *Dictionnaire Medical*, has elicited from the learned professor a reply which we reproduce, as it explains the changes his views have undergone on the efficacy of the medical treatment of diphtheria, and more especially of croup.

"It is perfectly true," says M. Trousseau, at the date of September 20th, "that in the epidemics of diphtheria, which from 1818 to 1828 prevailed in the departments of Indre-et-Loire, Loir-et-Cher, and Loiret, the disease of the fauces readily yielded to frequent insufflation of alum, and to cauterization with muriatic acid or nitrate of silver. It is equally true that, when the complaint was met in its early stages, four or five days were sufficient to effect a cure, excepting, of course, when diphtheria had invaded the larynx.

"For ten years past, however, diphtheria has acquired in Paris and in the provinces a degree of gravity and of malignancy which it did not, by any means, possess thirty years ago; and I declare that it is now a long time since I have had the good fortune to see genuine pharyngeal diphtheria yield to treatment in four or five days. Common pseudo-membranous angina, or herpes of the fauces, may be cured in twenty-four or forty-eight hours, but not real diphtheria, such as we too frequently meet with.

"I resort to the same means as M. Loiseau and perform insufflation into the throat every two hours, and even every hour, if necessary, alternating the use of equal parts of sugar and alum or tannin. From time to time, I brush rather roughly the uvula and tonsils, before resorting to insufflation, in order that the medicinal agents may come into immediate contact with the mucous surface, and I consider myself very fortunate when, after ten days' treatment, all trace of false membranes has disappeared.

"In five adults whom, within the last few months, I attended with my friends, Drs. Bernard, Patouillet and Blondeau, the disease lasted nine days in one case, and more than a fortnight in the others, and I repeat that it would have been utterly impossible to use with more persevering energy the remedies extolled by M. Loiseau, which I consider most useful, namely, alum and tannin.

"Appealing to the testimony of my learned colleagues of the Hospital for Infancy, MM. Blache, Bouvier, Roger, Sée, and of Dr. Barthez, I find their statements are perfectly similar to mine, and that they agree with me in thinking that the singularly rapid, extraordinary and numerous cures effected by M. Loiseau may perhaps be accounted for by his not having allowed himself sufficient time to establish an incontrovertible diagnosis.

"It is difficult at first, and especially in children, to distinguish genuine diphtheria from pharyngeal herpes; and although in doubt, I prescribe the local application of alum and tannin, I do not flatter myself that I have effected a cure of tonsillary diphtheria when, after twenty-four hours, I cease to detect in the throat any pellicular concretions."

We are happy to be confirmed by so competent an authority, in the remarks we have offered above on the importance of diagnosis in the appreciation of the various remedies recommended for a disease the gravity of which, far from subsiding, seems rather on the increase, especially when observed in an epidemic form.—*Maryland & Virginia Med. Jour.*

Case of Traumatic Tetanus treated with success by Injections of Sulphate of Atropia.—(Gazette Médicale de Lyon.)

Dr. Dupuy has recorded a case of traumatic tetanus in which the subcutaneous injection of sulphate of atropia was employed with success. The patient was a young man who had suffered a comminuted fracture of the index finger, followed by tetanus. Extract of belladonna was administered without any appreciable effect, and the tincture was equally unsuccessful. The surgeons in attendance removed the splinters of bone under the use of anæsthetics, but on awaking the patient was more agitated than before; the jaws could scarcely be opened, and the trunk rested only upon the occiput and pelvis. The dose of extract of belladonna was doubled, but without apparent effect. As the disease was still advancing, and the means hitherto employed were unsuccessful, it was determined to inject with sulphate of atropia. Twenty-five drops of a solution were injected by means of syringe into the subcutaneous tissue of the lumbar region. At the end of a quarter of an hour there were symptoms of poisoning

by belladonna, the agitation of the patient being so great that two persons could scarcely restrain him. This state continued for some time, after which he fell asleep for three hours. The stiffness of the lower limb then diminished and the patient could bend his knees, but the opisthotonos and trismus remained. Another injection was performed in the lumbar region, and was also followed by symptoms of poisoning. The patient afterwards slept for five hours, and from this time the symptoms gradually diminished; the wound being dressed with a pommade containing belladonna.—*Md. & Va. Med. Jour.*

AN EXTRAORDINARY CASE.

We extract the following from a Parisian letter to the "New York World." The case has been referred to by several of the recent medical journals, but in none have we seen so full an account as the one below.—[Eds.]

A fact of considerable interest to medical men has just been reported to the academy of medicine by the surgeon of the Hospital St. Eloi, at Montpellier. Professor Buisson, the surgeon in question, states that on the 1st of August, 1858, a man about fifty years of age was brought to the hospital by persons who were not able to give any precise information with regard to him, and the patient himself, being interrogated, gave incoherent responses. It was found, however, that he exhibited none of the signs of paralysis, that he had no fever, or any symptom of an acute disease. Upon examining his eyes, it was ascertained that he was deprived of sight by the existence of a double cataract. The patient could himself give no information as to the time which he had been afflicted, and in answer to all questions continued to give utterly unsatisfactory and incoherent replies. The person who had brought him to the hospital, informed the surgeon that he was in the habit of talking this way, of being continually murmuring to himself, and that he appeared to take no cognizance of what was passing around him. His appearance, and the facts which he was able to gather, satisfied M. Buisson that the unfortunate man was, at the same time, suffering under blindness and dementia. Fifteen days his symptoms were closely observed, and he was, during this time, placed upon a severe regimen, for the purpose of removing the effects of any recent morbid influence. No marked change, however, ensued; he still exhibited the same degree of imbecility, and when spoken to in relation to an operation for his cataract, he exhibited no sign of satisfaction or of hope. In short, he continued to exhibit all the usual symptoms of dementia, and the surgeons satisfied them-

selves entirely that this was not the result of the abuse of alcoholic drinks, or that it followed any sudden shock of the nervous system. The patient had been a daily laborer, working upon a farm, and had continued his labor up to the time when the total loss of sight prevented him from working longer.

M. Buisson endeavored to ascertain whether the enfeeblement of the intellectual faculties in the case of this patient had commenced before or simultaneously with his loss of sight. It is a fact well known to medical men that blindness often follows cerebral affections, but in these cases it is of a purely nervous nature; it is *amaurosis*, that is to say, a paralysis of the retina, resulting from the general paralysis. But this was a case of an entirely different nature—the blindness here having a well defined anatomical cause. The patient was afflicted with cataract, which is a physical alteration of the crystalline lens, an affection which does not in the slightest degree depend upon the condition of the brain. With all his exertions, however, M. Buisson was not able to determine whether the blindness had preceded or followed the mental disease.

Such was the condition of this patient when M. Buisson determined to restore his sight by performing the usual operation for cataract, which was done upon both eyes on the 16th of August last. He was placed under the influence of chloroform, and was in such a profound condition of *anæsthesia* that the first stroke of light upon the eye did not even cause a contraction of the pupil. The usual dressings were placed upon the eyes, so that the light should be excluded, and the patient being placed in a straight-jacket, in order to prevent him from touching his eyes, was carried to his bed without exhibiting the slightest knowledge of what had passed; and during the ten days that he was confined in a dark chamber, he gave no sign of intelligence or of any consciousness that he had submitted to any operation whatever. On the tenth day, the bandages were carefully removed and the light gradually permitted to break upon his eyes. For the first time since his admission to the hospital, he gave a sign of intelligence. A smile—silly, but joyous—spreading over his whole face, and he cried, "I see! I see!" These were the first reasonable words to which he had given utterance since he had been in the hospital. Day after day, gradually, he was allowed to have more light, and day by day, as the experiments confirmed the perfect success of the operation for the cataract, they also proved what had not been dreamed of—the return of reason. As his sight became stronger, the patient became more docile. Less contrary and less indifferent to questions put to him, he began to make ready and reasonable replies. Every day marked the return of intelligence. He recognized objects about him, and uttered their names with a childish joy, and reached out his hands to

seize them. This new ocular education, however, was not long required. His memory returned to him with a daily appreciable strength, and his intellectual faculties began to exhibit themselves. He demanded an augmentation of his ration, desired to get up, and already began to talk of leaving the hospital. Still, as his sight grew stronger, his words grew plainer and more consecutive, and his ideas clearer and without incoherence, and the memory of events which occurred prior to his loss of sight began to break upon him. It was impossible, however, to ascertain with any degree of certainty when his mental powers began to fail, or were lost, and all that could be learned of his loss of sight was, that it commenced about three years ago. A month and a half after the entrance of this man, blind and demented, into the hospital, he was at work again, with his vision and his mind restored. The man was completely metamorphosed, not only in the condition of his ideas, but also in his bearing and features, which previously fixed and stupid, were now doubly illumined by the restoration of sight and reason.

These are the details of this extraordinary case, and as they are somewhat long, I will leave all comments and speculations upon them to those of your readers who may be interested in them, simply remarking that they have excited a great deal of curiosity and discussion among the *savans* of the Academy of Medicine. The question which, with the facts before them, they have endeavored to solve is, whether this recovery of reason following the recovery of sight was a simple succession of facts, or whether it has a natural effect. M. Buisson sustains the latter theory with a great deal of vigor, and it is probable that the faculty will be on the look out for other cases of a similar nature, in order to further test the truth of his theory. At any rate, as an isolated fact merely, this case is an extremely interesting one.

[*Md. & Va. Med. Jour.*

On Hemorrhage from the Bowel, in Children, as a sign of Polypus in the Rectum, By THOMAS BRYANT, Esq., F.R.C.S., Assistant Surgeon to Guy's Hospital.

[Polypus of the rectum is usually considered a rare affection; but, within the last two years, at least twenty examples have fallen under the author's notice. The connection between hemorrhage from the bowel in children, and polypus of the rectum, is remarkably constant. Mr. Bryant says:]

In the majority of the cases which I have observed, the disease has existed for many months; they have all occurred in children under ten years, and, in most, the disease has been regarded and

treated for piles. In some cases the discharge of blood from the bowel is constant, and its buttocks smeared with a bloody mucus. In these instances the polypus will generally be found to be within, if not protruding from, the sphincter. In other examples, occasional discharges of blood will be observed, although not to any very great extent, and this discharge will generally accompany and follow the act of defecation. In others, again, the hemorrhage will take place independently of any such process. There will, generally, be some straining after stool, but I have never observed any prolapse of the rectum; and although this disease is troublesome to the child, and of course debilitating by the repeated, if not constant hemorrhage, when once recognized it is easily treated and rapidly cured.

The recollection that such a disease is not so uncommon, and that it is always associated with hemorrhage from the bowel, should at once lead the surgeon to examine the part with his finger, when the growth will probably be easily detected. It is generally situated about one or two inches up the bowel, and will be found to vary from the size of a pea to that of a large nut. In some cases more than one will be present; they are always very moveable, and easily slip away from the finger upon anything like pressure; and at times, some little difficulty is experienced in fixing them for removal. Such a practice is the only correct statement, being invariably followed by a successful result. It may be done by means of forceps or ligature; and in many cases I have broken the polypus off its attachment by hooking my finger round its pedicle. No bad result has ever followed. The pedicle is always very slender, although it may be an inch or more in length.

The structure of the polypus is very simple, microscopically presenting the ordinary characters of the fibro-cellular growths. After removal no subsequent treatment is required, and recovery may confidently be expected; the rectum, however, should be carefully examined, so that a second polypus be not overlooked.

I have thus briefly brought this small but not unimportant subject before the notice of the profession, feeling confident that the existence of polypus of the rectum is not so uncommon as is generally believed, and that such an affection is usually mistaken and treated for piles. In children, the presence of bleeding from the rectum should at once lead the practitioner to suspect the existence of polypus; and, when detected, its removal is the only correct treatment. I have never had an opportunity of seeing a child suffering from piles, and believe that cases so described are generally mistaken, and that, in reality, they are cases of the disease now under consideration.—*Lancet*.—*North Carolina Jour.*

Periodicity as a Character of Disease. By RICHARD HUGHES,
M.R.C.S., Surgeon to the Brighton Orthopædic Hospital.

There is one disease—ague—of the phenomena of which periodicity is an invariable characteristic. There are other affections—the neuralgia and nervous headaches—which very frequently assume a regular intermittent character. And occasionally, in the course of various diseases, a tendency to a periodical type is manifested.

Quinine and arsenic are specifics in ague. They are hardly less valuable in neuralgia and nervous headaches. And when, in works on medicine, we meet with the remark that sometimes the symptoms seem to come on periodically, it is generally coupled with the statement that in these cases quinine will be found of the utmost value.

What is the *rationale* of the facts?

The cause of the regular periodic recurrence of the paroxysms of intermittent fever is discussed by Dr. Watson, in the first volume of his Lectures on Medicine, p. 758. After passing in review the various theories that have been advanced to account for it, he leaves the subject as one altogether uncertain. Cullen's hypothesis as to the influence of diurnal habit he thinks the nearest approach to the truth; but admits that this will in no way account for the tertian and quartan types of ague. In this state of uncertainty, the peculiar poison—malaria—which causes the intermittent fever, has been generally regarded as the source of its periodical character. It is supposed to act in the way of a ferment in the blood; and the zymotic process set up by it is supposed to have its regular development and decline, the paroxysms being its effect on the nervous system when the process attains its acme. When other affections manifest a periodic type, it is supposed that their subjects have either had ague or been exposed to malarious influences. On the other hand, quinine and arsenic are considered to be antidotes to the malarious poison, and thus to counteract its periodic influence in all affections which tend to assume that type. But I think I shall be borne out by general experience when I assert that periodic phenomena are manifest in many a case of neuralgia or other disease, when the hypothesis of malarious influence is altogether shut out. This theory, therefore, in itself *a priori* most improbable, must be at once rejected.

If, then, the periodicity of ague does not depend upon the peculiar poison which occasions it, does it depend upon the peculiar portion of the organism which that poison affects? This is universally acknowledged to be the nervous system—the sympathetic.

Let me place one after another some of the principal pheno-

mena of the cold stage of ague, with those produced by galvanization of the sympathetic in the neck.

In the cold stage of ague "the patient feels chilly; the blood deserts the superficial capillaries; he grows pale; his features shrink; his skin is rendered dry and rough; his respiration is quick and anxious; his pulse frequent sometimes, but feeble; all the secretions are usually diminished; may make water often, though generally he voids but little, and it is pale and aqueous; his bowels are confined, and his tongue is dry and white."—*Watson, op. cit., p. 735.*

Let Dr. Brown-Sequard now tell us the result of his galvanizing the sympathetic in the neck: "The pupils are dilated; the eye-lids wide open; the globes protruding. Blood deserts the superficial vessels; secretion is diminished or checked; temperature and all vital functions lowered."

It is clear from the above that the essential phenomena (diminished afflux of blood to the surface, check of secretion, and lowering of temperature) of the cold stage of intermittent fever may be produced artificially by excitation of the sympathetic nerve, and are dependent upon the contraction of the blood-vessels thereby occasioned. The hot stage is no less explicable as the natural reaction of the vessels to even beyond their normal calibre, and find its precise analogue in the phenomena which results from section of the sympathetic in the neck.

It would appear from the above that the sympathetic system is that part of the organism specially affected by the malarious poison, and that the phenomena of ague depend on a periodic excitation of it by the poison, followed by an equally immoderate reaction in the opposite direction, which latter at length settles down to the equilibrium of health. And upon the hypothesis the beneficial influence of quinine and arsenic in this disease receives its perfect *rationale*. For these are well known as (to use Dr. Handfield Jones' term) "toners of the vaso-motor nerves"—i. e., of the sympathetic—and their tonic influence thus exerted will obviously render it capable of resisting the morbid irritation of the malarious poison; a view of which is confirmed by the well known fact that quinine is no less valuable as a preventive than as a curative agent against this malady.

But will the fact of the sympathetic system being the seat of the phenomena of ague help us to explain the periodic character of these phenomena? I think it will. Let us consider the actions of the heart and the uterus, two muscular organs supplied mainly or entirely by this nerve.

What is the cause of the rhythm of the heart? It cannot be the stimulus of the blood, or of anything else within the body: for a frog's heart will continue its regular systole and diastole for some time after its removal from the thorax. The only motive

agency then left to it is that of the sympathetic ganglia, which are imbedded in its substance. To these nervous centres we are therefore shut in our inquiry as to the heart's action; but the influence of these centres is neither continuous nor occasional, but rhythmical, *i. e.*, periodic.

The uterus resembles the heart in its also possessing numerous sympathetic ganglia imbedded in its muscular walls, and in entire independence of the cerebro-spinal system in its movements. Is there anything here periodic? We immediately think of the regular monthly recurrence of the phenomena of menstruation, and of the act of parturition, which (as first shown by Dr. Tyler Smith in the pages of "The Lancet") is determined by the menstrual periods being normally due on the twenty-first day after the commencement of the last menstruation.*

From the marked periodicity apparent in the action of these two organs, exclusively animated by sympathetic ganglia, we seem justified in the conclusion that a periodical evolution of nerve-force is characteristic of this division of the nervous system; and if this be the case, we cannot be surprised that it should give its peculiar character to phenomena resulting from the effect of a poison upon itself. Thus the periodic character of the paroxysms of ague is reduced under the mere general law of periodic character of phenomena, morbid or natural, over which the sympathetic system presides, dependent upon the endowment of this system itself.

It follows that periodic phenomena appearing in the course of any other diseases must be attributed to an involvement of the sympathetic system in their morbid irritation; and thus the beneficial effects of quinine and arsenic in all such cases fall under the general law of their toning influence upon that system. I may instance the most common affection which inclines to a periodic type—nervous headache. Dr. Symonds, in his admirable Gulstonian Lectures upon this subject, shows by many arguments that the vascular nerve—*i. e.*, sympathetic—of the brain and skull are the seat of pain in this affection, and, in common with general experience, regards quinine and arsenic as the sheet-anchor in its treatment.

I venture to admit that the following original conclusions are established by the preceding considerations: 1. That ague is an affection of the sympathetic system; 2. That its periodical character is dependent upon a periodicity impressed upon the sympathetic system, and manifested in all the phenomena, morbid and natural, over which it presides; 3. That the *modus operandi* of

* This theory should be more widely carried out in obstetric practice. I have been delighted at the exactitude with which it has enabled me to predict even the day of delivery. The advantage of such a pre knowledge, whether to patient or practitioner, is immense.

quinine and arsenic in ague and other periodical affections is the toning influence exerted by them on the sympathetic nerve. The doctrine also of the dependence of the heart's movements on its embedded ganglia, and of the menstrual periodicity as the determining cause of parturition, receive no slight corroboration; and our instinctive recourse to quinine and arsenic, whenever periodic symptoms manifest themselves, receive alike its *rationale* and its establishment.—*Ohio Med. Jour.*

Urticaria as a Symptom of Irritation of the Female Sexual Organs. By Prof. SCANZONI.

Prof. Scanzoni observes that although it has long been known that chronic affections of the female sexual organs are not infrequently accompanied by skin diseases, (urticaria, eczema, acne, psoriasis, chloasma, etc.,) the influence of a more sudden irritation of these organs upon the cutaneous surface is by no means so well established. He has been enabled to find no very definite statements upon the subject, and this leads him to communicate some cases tending to establish such a consensus.

A lady, aged thirty-five, had been under his care for some time with slight retroflexion of the uterus and chronic metritis, when he ordered four leeches to be applied to the vaginal portion of the cervix uteri. This little operation had been already performed once before without any ill effect, but upon the present occasion, ten minutes after the application had been made, the patient was seized with violent febrile action, and slight delirium. In half an hour she was seen by the author, who found her skin, and especially that of the face and upper part of the body, almost of a scarlet red. The temperature of the surface was considerably raised, and her pulse beat 136. She continued much the same during the night, and when seen next day, the face, neck, chest, arms, and thighs exhibited with the intense redness, innumerable urticaria elevations. In a day or two the exanthem had entirely disappeared, a distinct desquamation, however, taking place on the face and neck. As this was the first case the author had ever seen in which these symptoms followed the application of the leeches to the cervix, he did not believe in their dependence upon this, and again ordered them to be employed. Four times this was done without any unpleasant occurrence, but on the fifth occasion the whole series of symptoms above described were reproduced, and that so rapidly after the biting of the leeches that any doubt as to cause and effect could no longer be entertained.

In a second case, a woman, aged eighteen years, was admitted into the Wursburg Midwifery Institution on account of chronic

uterine infarctus, and five leeches were ordered to be applied to the cervix. Scarcely had they taken hold, when she complained of the most violent labor-like pains in the abdomen, and although these soon moderated in force, they were accompanied with such intense febrile action that the entire body glowed with heat, the pulse rose to 140, the carotids pulsated visibly, and the face, neck and chest exhibited an intensely red color, to which were added in a very short time a large eruption of urticaria elevations of a palish color. The eruption was accompanied by great headache, inclination to vomit, and excessive lassitude, symptoms which continued to the following day—although the exanthem, with the accompanying fever, disappeared entirely after three hours' continuance. This patient often had suffered from urticaria at the menstrual periods, without, however, its being accompanied by such violent symptoms.

The third case occurred in the person of a young lady, aged twenty-six, who, on account of long-continued chronic oophoritis and metritis, required blood-letting. In the course of sixteen months, four or five leeches had been applied eight times. On the ninth occasion, an intense redness covered the skin, and the patient complained of the most violent pain in the head. The temperature of the surface was much raised, and it was almost entirely covered with innumerable, minute, prominent elevations. In the course of an hour these appearances gradually subsided, the headache continuing for twenty-four hours longer. The author is aware of a fourth case of the same kind, but is unable to furnish the particulars.

Prof. Scanzoni believes that these cases deserve the attention of those occupied with the diseases of women, as well as of dermatologists. They admit of no other explanation than the irritation of the uterine nerves, caused by the bite of leeches, induced an entirely unusual, and in its mode of origin inexplicable, disturbance of the vascular system, which again, in a mode which is to us equally unintelligible, gave rise to the production of the eruption of urticaria. In proof that these appearances were not produced as a consequence of any poison being conveyed through the medium of the bite of the leech, it is to be observed that similar symptoms never result from the application of leeches to other regions of the body, while it is to be observed that even very slight irritation of the sexual organs, as that produced by examination with the finger or speculum, or by the application of caustic, will, in many sensitive women, give rise to erythema of the face, neck, breast, etc., which disappears as rapidly as it comes on.—*Würzburg Medicin. Zeitschrifts.*—*N. C. Med. Journal.*

On the Diseases of Printers. By Dr. VAN HOLSBEEK.

Dr. Van Holsbeek having enumerated the diseases resulting from over-work, from intemperance, want of cleanliness, vicious habits, protracted watching, etc., proceeds to speak of the morbid affections more specially belonging to the printers' art. Fissures of the lips, of varying depths, are of frequent occurrence; at other times tumors are developed on the inner surface of the same parts, which are nothing else than follicles whose excretory ducts are closed. These tumors sometimes inflame, become highly painful, rapidly ulcerate, and assume a cancerous appearance. Such affections of the lip are owing to the habit some compositors have of putting into their mouth the types still moist with the fluid which has served to wash them. Dyspepsia is frequent, as is diarrhoea; the latter is, however, of a transitory and mild nature. Among the most common affections are those of the respiratory passages, of which laryngitis and bronchitis are the principal; pleuritis is rare; pleuro-pneumonia is frequent and severe. These diseases are favored by the curved position which the printers are obliged to maintain during their work, particularly when they correct on the forms, and still more by the night-work, by gas-light, by the dust and emanations in places often confined and badly ventilated. Nearly twenty-five per cent. of printers die of tuberculosis, either hereditary or acquired. Diseases of the heart prevail among the pressmen; hæmorrhoids are rare; varices and varicose ulcers are of frequent occurrence; the compositors who correct on the form frequently suffer from cerebral congestions and hæmorrhage. Among nervous diseases we observe tremor of the hands, against which the author successfully employs the electric current. Saturnine colic and paralysis are rarer than formerly, an improvement due principally to the difference in the composition of the materials of which the type is made, to the precaution of cleaning it from dust, as well as frequently rubbing the boxes which contain it; lastly, to the care of the workmen, who no longer put the letters in their mouth. Hernia is common, particularly among the pressmen; in them we occasionally observe distortion of the joints of the fingers. Fissures and callosities form on the thumb and index finger of the right hand, on account of the roughness of the characters, particularly if they are new and damp with the matters with which they are polished; moreover, in consequence of the habit the printers have of washing themselves with alkaline water or bad soap. Amblyopia and myopia, so very prevalent among typographers, terminate the sketch drawn by the author of the diseases of this interesting class of artisans, with whom we are in daily contact, and whose intelligence and diligence we have constant reason to admire.—*Lo Sperimentale*, Dec., 1859, p. 560.—*Ohio Med. & Surg. Jour.*

NEW TEST FOR DIABETES.

Dr. E. C. Bidwell communicates to the Boston Med. & Surg. Jour. (Nov. 22, 1860) a process which he claims as a new test for glucosuria. His proposed test, he says, if not preëminently scientific, is nevertheless facile and reliable. He converts the saccharine element of diabetic urine into *caramel*, by heat. Upon a clean slip of tinned iron are placed one or two drops of the suspected material, which is then held over a spirit lamp; the fluid will speedily evaporate, leaving scarcely a trace upon the surface of the metal. The application of the heat is continued, and in a few moments after the completion of dessication, a spot, about an inch in diameter, over which the drop has spread with the first ebullition, will gradually assume a rich reddish brown color, with a brilliant lustre, having the appearance of Japan lacquer. The application of a stronger heat produces a darker, but the lustre continues until the intensity of the heat decomposes the substance. Dr. B. claims great success in his experiments, with this new method, which is far superior to those tests found on either fermentation, or on the reduction of metallic oxides, which latter, besides being complicated and inconvenient for clinical use, are liable to various fallacies.—*N. O. Med. News & Hospital Gazette*.—*N. C. Med. Jour*.

 PART IV.

EDITORIAL.

ST. LOUIS MEDICAL SOCIETY.

At the annual meeting of the St. Louis Medical Society, held in January, the following officers were elected for the present year: *President*, M. M. Pallen; *Vice President*, J. T. Hodgen; *Corresponding Secretary*, F. W. White; *Recording Secretary*, E. J. Marsh; *Treasurer*, Thomas Kennard.

Publishing Committee—Montrose A. Pallen, James B. Washington; J. S. B. Alleyne.

Executive Committee—J. H. Watters, G. H. E. Baumgarten, U. H. Billingslea.

U. S. MARINE HOSPITAL, ST. LOUIS.

There were admitted and treated in the U. S. Marine Hospital, St. Louis, under the care of W. M. McPheeters, M.D., during the year 1860, *one thousand and thirty patients*. Of these, 986 were discharged cured, 80 died, and 64 remained on hand and under treatment at the close of the year. From this it will be seen that the ratio of mortality was less than *three per cent*.

Among the medical cases there were of intermittent fever, 141; remittent fever, 124; diarrhoea and dysentery, 119; bronchitis and pneumonia, 33; phthisis pulmonalis, 15; rheumatism, 31; typhoid fever, 16; erysipelas, 6; syphilis, 180; gonorrhoea, 29. Among the surgical cases there were 16 fractures and 4 dislocations. Of the fractures, one was of the femur, five of the tibia and fibula (two of which were compound), four of the arm and forearm, four of the clavicle, one of the skull, and one of the patella. The remaining cases were made up of miscellaneous, medical, and surgical diseases. All the cases of fracture, with the exception of that of the skull, recovered, without shortening or deformity. Of the thirty deaths, nine were from pneumonia, seven from diarrhoea and dysentery, four from phthisis, two from apoplexy, one from hæmoptisis, one each from fracture of the skull, pericarditis, hepatitis, cerebritis, typhoid fever, penetrating wound of the chest, and mania a potu.

ST. LOUIS DISPENSARY.

From the annual report of the St. Louis Dispensary, a charity sustained by private contributions, and under the medical charge of Drs. Elias J. Marsh, Thomas Kennard, and E. H. Bryan, we learn that from its commencement in May, 1860, to the close of December, two thousand three hundred and sixty-two patients were treated and supplied with medicine.

The table of diseases published (which, however, we omit) shows that malarial fevers, and other kindred diseases, formed a very numerous class during the summer and autumn months. In reference to the expensiveness of quinine in the treatment of these affections, the report states: "Latterly, we have substitu-

ted for it (quinine) the *chinoidene*, a medicine similar in its nature and action, but much cheaper. Having given this agent an extensive trial, we are enabled to state, that in nearly all cases we have found it to answer fully as well as the quinine itself."

As regards the nationality of the patients, 1317 were from Ireland, 802 from the United States, 187 from Germany, 63 from England, 44 from British America, 11 from Scotland, 6 from France, 5 from Sweden, with individual representatives from several other countries. The report goes on to state "from this it will be seen that the Irish composed more than one half of the whole number. Of the Americans most of them were the children of Irish parents; the number of adult Americans, or the children of American parents, were very small."

From this brief and imperfect synopsis of the report, it will be seen that this Institution, although of recent date, is doing a good work, and therefore deserves to be sustained; and we take this occasion to commend it to the fostering care of our City Council. It is located on O'Fallon street, near Broadway, in the midst of a population most of all requiring its aid.

GRADUATES OF THE ST. LOUIS MEDICAL COLLEGE.

At the annual commencement of the St. Louis Medical College held in O'Fallon Hall, Friday evening, February 22d, 1861, the degree of Doctor of Medicine was conferred by Prof. Chas. A. Pope, Dean of the Faculty, on the following gentlemen; after which the valedictory address to the graduates was delivered by Prof. Chas. W. Stevens.

Name.	Residence.	Subject of Thesis.
E. W. Ayres,	Missouri.	Anæsthesia in Parturition.
John W. Bronaugh,	"	Diagnosis.
W. E. Brown,	"	Parturition.
Samuel L. Bolton,	"	A case in Practice.
George E. Chinn,	"	Digestion.
J. H. Carter,	"	Ad Eundem.
John H. Cramer,	"	Scrofula.

Name.	Residence.	Subject of Thesis.
W. Armstrong Collins,	Missouri.	Typhoid Fever.
A. W. Chenoweth,	"	Ad Eundem.
Charles Davis,	Illinois.	{ Morbid Anatomy of the Tubercular Lung.
J. H. Dodson,	Missouri.	
Isaac K. Fay,	Illinois.	Med'l Properties of Iodine.
E. L. Feehan,	Missouri.	Fibrin not Histogenetic.
Stewart Gordon,	Illinois.	Diphtheria.
E. F. Henderson,	"	Dislocations.
R. E. Howlett,	Missouri.	Bilious Fever.
Joseph L. Haw,	"	{ Definition of Disease.
C. W. Hagen,	"	
E. H. Hoffman,	"	Anatomy and Physiology of the Liver.
T. S. Hawley,	Illinois.	Scarlatina.
John Heinbach,	Missouri.	Phthisis Pulmonalis.
Henry Hanson,	Illinois.	{ The Importance of a correct Diagnosis.
William J. Judd,	N. C.	
Wm. A. Jackson,	Missouri.	{ Tobacco and its Use.
W. T. Kirtley,	"	
Jas. Albert Koch,	"	Dislocations.
A. Augustus Lyon,	Miss'ppi.	Diphtheria.
G. W. Love,	Missouri.	{ Parturition under extraordinary circumstances.
James Long,	"	
Dills Dyer Lockhart,	"	Erysipelas.
Frank B. Moore,	"	Continued Fever.
John B. Miller,	"	{ Functional Diseases of the Heart.
R. W. McClelland,	"	
W. G. McKisick,	Texas.	Ad Eundem.
P. S. O'Reilly,	Missouri.	Etiology.
W. J. Peak,	"	Congestive Fever.
L. D. Rush,	Indiana.	Thesis Writing.
John W. H. Ross,	Missouri.	The Crepitant Râle.
Wm. Frank Starks,	"	Typhoid Fever.
J. F. Starks,	"	The Brain.
John A. Searcy,	"	History of Medicine.
		Acute Peritonitis.
		Ad Eundem.
		Scarlatina.
		Arterial Hemorrhage.
		Peritonitis.
		Inflammation.

Name.	Residence.	Subject of Thesis.
Edward C. Strode,	Illinois.	Diphtheria.
Sol. W. Steigers,	Missouri.	Causes of Consumption.
John D. Smith,	"	Ad Eundem.
John D. Taylor,	"	Pneumonia.
Junius Terry,	"	Deposits.
J. J. Turner,	Illinois.	Pathology of Irritation.
B. F. Taft,	Missouri.	{ Medicine in the Nineteenth Century.
William D. Wilhite,	"	
T. A. Winn,	"	Pharmacology.
Paul C. Yates,	"	Pollution.
J. M. Youngblood,	"	Oxygen.

Owing to the political and financial troubles of the country, and at the earnest request of the class, the session terminated a week or ten days sooner than usual.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

Our readers will bear in mind that the next meeting of the National Medical Association will be held in Chicago on the first Tuesday of June next, instead in May as heretofore.

God only knows what will be the state of the country at that time, or whether there will be anything left which deserves the name of *national*. But as the political convention which met in Chicago last spring contributed so largely to the present disturbed state of public affairs, it is meet that the profession should assemble in the same place, and endeavor by their wisdom and patriotism to do something to preserve the constitution, and restore the body politic to a state of soundness and health. We hope, therefore, to see a large attendance from all sections of this broad, and once united and happy, but now unfortunately dissevered land. Even should we belong to separate and distinct confederacies, we, nevertheless, are all members of the same noble and catholic profession, which knows no sectionalism. Let us, therefore, come together as brethren, having for our motto—The union of the Profession for the sake of the Union—or if need be, re-union, or reconstruction, or whatever else the exigencies of the times may demand at our hands for the preservation of peace and harmony.

TO CORRESPONDENTS.

The communication of Dr. N. E. Jones of Centreville, Ohio, on "Diphtheria," has been received after a delay of considerably over a month, making it too late for this number. It will appear in our next.

We are also in receipt of several new works, which will receive due notice.

MEDICAL MISCELLANY.

EXPULSION OF A HOMŒOPATH.

The St. Louis Medical Society, at a meeting held on the 23d of February, after a thorough investigation of the subject, expelled from membership Dr. George S. Walker of this city for having adopted the homœopathic heresy. In our next issue we may give the official proceedings.

Woorara in Epilepsy.—The Baltimore Journal of Medicine states, that M. Thiercelin presented a paper to the French Academy on the 12th of Nov. last, giving his experience with Woorara, in the treatment of epilepsy. He reports two cases of several years' duration, which were greatly benefited by the use of this agent.

An Heroic Suggestion as to the treatment of Hydrophobia.—A correspondent from Hillsboro, Illinois, in a letter to one of the editors of this journal says: "I would suggest one grand experiment for the cure of hydrophobia; that is, to trephine and subject the brain to pressure, and thus in a degree suspend the functions of the nervous system. Now when we relieve the excessive nervous irritability, there is reason to hope that nature will be able to eliminate the poison, or else its effects cease before the patient is exhausted. It may be said that this is a dangerous remedy, but a dangerous remedy may be required for a dangerous disease."

Death of Prof. John W. Francis of New York.—We regret to learn through the daily papers of the death of the venerable Dr. Francis of New York, in the 72d year of his age. Dr. F. has long been a leading physician in the city of New York, and was justly esteemed for his talents and for his many professional and social virtues.

Vicarious Menstruation.—The N. Y. Med. Press says: "A German girl, aged twenty years, had never menstruated normally; but an ulcer on the inner anterior portion of each tibia would break and bleed freely each month, quite regularly, since she was fourteen years of age. She had spent much of this time under the care of physicians, both in this country and in Germany; had tried changes of air, diet, associations and travelling, both by sea and land, besides medication, but all to no purpose. Dr. McLaury found her, in August, 1859, suffering from periodic pains; for the correction of which, he gave five grains of the iodide of potassa, with extract of conium; for the menstrual derangement, the ordinary pill of aloes and iron, one night and morning; the bowels moving too freely, after three days but one pill a day was ordered. In just eight days from the time she commenced this treatment, she had the first normal menstruation; and the catamenia continued regular ever since, while the sores on the legs healed completely."

A Move in the right Direction.—The New York Academy of Medicine have passed resolutions, declaring it derogatory to the dignity of the profession to publish cases and surgical operations in the daily papers, or to *suffer such publications to be made*—such proceedings being the ordinary practice of empirics. They also forbid the publication of the transactions of the academy in any other than a strictly medical journal. The practice of inviting newspaper reporters to be present at surgical operations—which has occasionally occurred in this city—for the purpose of securing "the puff direct," is equally unprofessional, and should receive, as it justly deserves, the unqualified condemnation of every respectable physician. We must, however, do the justice to state that this practice has never been resorted to, or permitted, by the better class of our surgeons.

Glycerine as a Solvent for Belladonna.—M. Foucher recommends the solution of belladonna in glycerine, instead of water, for the purpose of applying it around the brow to produce dilatation of the pupil. The extract is thus prevented from drying into a hard crust, and a greater certainty of absorption of the narcotic is insured.

[This would also be a good form for applying belladonna to the breast for the purpose of arresting the secretion of milk—one or two drachms of belladonna rubbed up in an ounce of glycerine and smeared over the breast; the addition of thirty or forty grs. of camphor would be beneficial.—Eds.]

A Fruitful source of Epilepsy.—Dr. Demereaux states, as we learn from the Maryland & Virginia Journal, that in a number of cases examined into, he has traced the cause of epilepsy in the offspring to the intoxication of the father at the time of sexual intercourse. He thinks that the baneful influence of drunkenness on the part of the parent on the fœtus, should be widely promulgated. It is certainly a strong argument, if arguments were needed, in favor of temperance.

Nitric Acid in Intermittent Fever.—Prof. Hammond of Baltimore reports in the Md. & Va. Med. Jour., the favorable results of a large number of cases of intermittent fever treated with nitric acid. The acid was administered in doses of ten drops, properly diluted, three times a day. He remarks that he has rarely been disappointed in his expectations of its curative action, whereupon, he adds: "Besides the fact that the nitric acid was equally successful with quinine in arresting the disease, the difference in the cost of the two articles is so greatly in favor of the former substance, as to render it an object of importance to make its curative properties more widely known."

The Berkshire Medical Journal.—We have received the second number, for February, of this new journal published monthly at Pittsfield, Massachusetts, and edited by Drs. Wm. Henry Thayer & R. Cresson Stiles, both of whom are professors in the Berkshire Medical College. It is to be issued monthly, at two dollars a year, and is devoted to the interests of rational medicine. The number before us presents a neat and attractive appearance, and gives evidence of being ably conducted. We very cheerfully place it on our list of exchanges, and whether we are hereafter to remain in the same political confederation with our new confrere or not, we yet both belong to the one indissoluble republic of medicine.

Hydrocyanate of Iron in Epilepsy.—The Cincinnati Lancet & Observer says: "Dr. G. S. Bailey, a retired physician of Iowa, states in a letter to the editors of the Journal of Materia Medica, that his only son, after having been treated six years for epilepsy with every remedy that medical skill could suggest, without success, was finally cured with the hydrocyanate of iron, by Prof. D. L. McGugin of Keokuk. The formula employed corresponds with the one used by Dr. Treat (Cin. Lancet & Obs., June, 1860, p. 383): hydrocyanate of iron, one drachm; powder of valerian, two drachms; extract of Indian hemp, one drachm, being originally added by McGugin. Make into one hundred and twenty pills. One of them is to be taken three times a day, gradually increased to four."

Virtues of Red Flannel.—Prof. Pepper, as reported in the Medical and Surgical Reporter says: "A very excellent, gentle counter-irritant is the wearing of the ordinary, very coarse, thick, red flannel next to the skin. The popular belief of the warming properties of this kind of flannel is not without foundation; for it is asserted by competent persons that in the red dye stuffs which are used in coloring this flannel poisonous species of sumach enter largely; and this explains the peculiar cutaneous eruption which is so often seen in persons wearing this coarse flannel, especially when new. Thus it may serve two purposes—protecting the body against cold and changes of temperature, while it acts at the same time as a counter irritant."

Ovariectomy.—Dr. E. S. Cooper of San Francisco has successfully removed an ovarian tumor, weighing eighteen pounds. This is, he states, his third operation in San Francisco, and the only one which terminated favorably.

Successful Operation of Tracheotomy.—Dr. Greene of Saco, Me., reports in the Boston Journal, a successful case of tracheotomy, performed on a child four and a half years old for the relief of membranous croup, with entire relief. This is rather a rare result, and as such deserves to be recorded. Emetics and other remedies were used simultaneously.

Physicians in the United States.—According to the Nashville Medical Journal, the number of physicians in the United States, (as heretofore comprised) amounts to 40,481. In Massachusetts there is one physician to 605 inhabitants; in New York, one to 611; in Pennsylvania, one to 561; in North Carolina, one to 802; in Ohio, one to 465; in Maine, one to 884, and in California, one to 860. These facts may be of interest to recent graduates.

How to Improve the Taste of Cod-Liver and Castor Oils.—The Louisville Medical News says: "Cod-liver or castor oil, shaken up with an equal volume of water distilled off the leaves of the wild cherry-tree, in a manner similar to that directed in the Edinburgh or Dublin Pharmacoposia for cherry laurel water, and left to rest forty-eight hours before separation, acquires by this simple operation an extremely sweet perfume and agreeable taste of almonds; the taste remains as long as the digestion lasts. Oil flavored in this way could be taken by many patients who reject it in its natural state. Castor oil is not affected in its purgative action by this process."

Retirement of M. Ricord.—The N. A. Med. Chir. Review mentions the fact that M. Ricord has delivered his farewell lecture, and retired from the Hôpital du Midi, to which he has been attached for nearly thirty years, in consequence of a regulation now in force in Paris, compelling surgeons holding official appointments to give up their hospitals and clinical teaching at the age of sixty. This strikes us as an absurd rule, wholly unworthy of the Emperor of France. At sixty years of age, most men are in the very vigor of manhood. We have always admired the custom of the ancient Romans, who admitted no one to their chief council until he had arrived at the age of sixty; but it seems that a physician must be dismissed from his post as a public teacher at the very time that his age and experience would qualify him to enter the Roman Senate. Is experience of no advantage in medicine?

Quackery and the Newspaper Press.—The American Medical Times states authoritatively, that the New York Tribune is to receive the enormous sum of \$31,000 for one year's insertion of a quack advertisement, in its daily, and semi-weekly, and weekly issues. With such powerful motives to aid and encourage quackery, can we expect any thing else than that such corrupt and unprincipled presses as the New York Tribune will continue to lend themselves as willing abettors to quackery? They have the same motive, only in an increased degree, to shout for it, as the Ephesian artisans did to cry "Great is Diana of the Ephesians!"

Chromate of Potassa in Warts.—M. Blaschko recommends the following formula as one of certain operation, even in very old standing and inveterate warts: Chromate, grs. $1\frac{1}{2}$; lard, 3 i. M. To be rubbed in night and morning.

Therapeutical Effects of Bromide of Potassium.—The Druggists' Circular says: "Dr. Pfeiffer of Paris has confirmed by his researches the opinions of other physicians as to the sedative effects of bromide of potassium over the generative organs; he has found that the salt possesses a decided power of modifying abnormal erections and diminishing the frequency of seminal discharges. He has arrived at the conclusion that bromide of potassium exercises a special influence over the muscular part of the genito-urinary apparatus, and at the same time induces a characteristic modification of the secreting functions of these organs. Dr. Pfeiffer has administered it also with success in neuralgia of the neck of the bladder. He commences with the dose of half a centigramme every day, and increases it gradually up to two grammes a day."

Dyspepsia.—The Med. & Surg. Reporter gives the following prescription, used by Prof. Pepper with advantage as a carminative, &c., in dyspepsia: R—Creosote, gtt. x.; sodæ carb. 3 ii.; tr. zinseber, 3 i.; tr. cardamon, 3 i.; sacchar.alb. 3 ii.; aqua cinamon, 3 vi. Dose, a teaspoonful three or four times a day.

Homœopathy at a Discount.—The Amer. Med. Gaz. says, that at the opening of the session of one of the homœopathic colleges recently chartered, it was found that only *three (!)* students were in attendance, and neither of them was prepared to pay any fees! Whereupon, the faculty dissolved,—the dose being too *infinitesimal*. If we have been correctly informed, this too is pretty much the history of a certain homœopathic college not a thousand miles distant from us.

Biography of the late Dr. Drake.—Dr. Magruder of Baton Rouge, Louisiana, is collecting material for a biography of the late Prof. Daniel Drake of Cincinnati. All who have any letters or papers, or are acquainted with any facts or incidents which may be of value in the preparation of such a work, are requested to address Dr. M. as above. Dr. Drake was a medical philosopher, and an ornament to the profession of the west; and as he was extensively known in this region, we mention the above fact, hoping that those who can will aid the author in his proposed laudable work.

The Baltimore Journal of Medicine.—We have received the first number of this new Journal, edited by Professor Edward Warren, and take pleasure in welcoming it to the list of our exchanges, and in cordially extending to the editor the right hand of fellowship. It is to be issued bi-monthly, and will contain not less than one hundred pages—price three dollars a year in advance. It presents a good appearance, and is filled with interesting matter, and is every way worthy of a liberal patronage.

Antagonism between Woorara and Strychnine—its use in Epilepsy.—The London Lancet says: "Prof. Vella, guided by the experimental researches of M. Claude Bernard, some time since completed a course of investigations in order to test the alleged antagonistic powers of woorara and strychnine, and his investigations considerably strengthened the belief, already prevalent, that the two agents stand in relation to one another as poison and antidote. It would now appear that M. Thiercelin has advanced a step further, and, struck by the counteraction of the artificially produced convulsions by woorara, has been led to administer the drug in the treatment of several convulsive diseases, more especially epilepsy, and with most marked effect."

THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL.

VOL. XIX.

MAY, 1861.

No. 3.

PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

[For the St. Louis Medical Journal.]

An Itinerancy to and through some of the Hospitals of Paris.

By Dr. S. POLLAK.

(Continued.)

The *Hospice of St. Lazare*, and *Le Dispensaire de Salubrité*. These two institutions, though entirely separated and distinct, belong to each other, and they must be described together. The Hospice of St. Lazare is a hospital for the *exclusive* use of the *licensed* prostitutes of Paris. It contains 360 beds, under the charge of Dr. Clerc.

Before proceeding, it is necessary to say something about the hygienic measures adopted by the Police of Paris in regard to *prostitutes*. I do it in the confident hope, that it may be pondered upon by every good citizen and philanthropist of the land; that inquiries may be instituted, the inevitable result of which would be an immediate adoption of like measures by every municipal government of the United States. If the good arising from them would only be one tithe of what it is here, we should be satisfied and grateful. It will never do to admit (it being an in-

delicate subject) that it had better be omitted from the journals. It is a social, and I might add a necessary evil, which unfortunately exists everywhere ; in the country as well as in the towns, but in larger cities much more. To extirpate it is impossible ; but to lessen its dire results is perfectly in our power. Paris, as well as other cities where similar regulations have been introduced affords evidence of it. If we continue in the United States to adopt every thing which is of *real* practical worth, then the few measures which I am about to mention will find a counterpart in the United States of incalculable beneficial results.

Every woman in Paris who lives by prostitution *must* be registered at the Préfecture de Police, with her name, age, former occupation, residence, and the cause which led to this awful step, stated. These women are divided into two classes ; 1st. *Les Isolées*, or *filles en carte*, i. e., those who keep house themselves, live alone, and receive visitors in their own apartments ; 2d. *Les filles de maison*, girls who live in houses of prostitution, known by the name of *les maisons de tolérance* ; the latter are kept by a person, who is called "*la Maitresse de Maison*," who is obliged to have a license from the Police, which is never given except with the knowledge and consent of the proprietor of the house. Such property is immensely valuable, but it is at once forfeited to the State if any serious disorders should take place in it. There are twelve physicians and one chief appointed, whose duty it is to visit these *maisons de tolérance* once a week, examine every one of the girls, who are obliged to be registered in the book, received from the police, of the *maitresses de maison*. The date and mode of examination are recorded in that book. If they are found healthy, nothing further is done ; but if unhealthy, they are forthwith ordered to the Préfecture de Police ; there again examined, and if verified, sent to the St. Lazare with or against her will. A prostitute loses her liberty as soon as she gets diseased. The police gets hold of her, and disposes of her in the most summary manner. There are not more than eighty such *maisons de tolérance* in Paris, averaging from ten to twenty inmates each.

But of the *Isolées* or *filles en carte*, there are over 4,000 registered. They are *not* visited, but have to *present* themselves at the préfecture de police once a fortnight. There they are exam-

ined most thoroughly, with the date of examination and result duly recorded. If found in the least diseased, she is not suffered to go home, but is at once sent to St. Lazare. The date and result of her examination is also *plainly* registered on their cards (license), which they are bound to exhibit to any visitor who may choose to demand it.

There are of both classes between five and six thousand registered. All these have to be examined twice a month. This makes 120 to 180,000 examinations a year, and all this is done by thirteen poorly paid physicians.

To be admitted to visit St. Lazare, or the Dispensaire de Salubrité, is, no easy matter. An especial permission of the Préfet de Police is necessary. He being a Minister, and one of the highest functionaries of the empire, access to him is very difficult. Application has to be made in writing, which has to be supported by our Representative. The Hon. M. Faulkner, to whom I am indebted for so many courtesies, at once affixed the seal of his office to my letter; the door of the Minister of Police flew open to that talisman, and permission was granted.

In the waiting room of the Dispensaire de Salubrité were between three and four hundred females in attendance. One by one they were called in; they came, deposited their license—card—on the desk. While they were ushered in the next room to be examined, *per speculum*, the register was carefully compared with their cards. If all in order, they were sent away, with a new stamp affixed to their cards; but if not, they were *sans ceremonie* sent to St. Lazare. They are *never* prescribed for *here*; they are either returned healthy, or, if in the least indisposed, they are sent to the hospital. It is a singular sight to see four hundred females, young and old, pretty and homely, gorgeously, coquettishly, or indifferently dressed, come in with all the nonchalance imaginable, make their bow, get up on the peculiarly prepared table, be examined, get down without taking even their hands out of the muff, all in less than a minute. Of the four hundred examined, not more than five were found slightly affected. These were all *filles en carte*, for the *others* are examined at the *tolérance*. None can escape being examined. After 2 o'clock, the register is carefully looked over, and if one, who should have come, has failed to present herself, a policeman at once

goes after her. No escape is possible. Now look at the result. The public is afflicted with a moral evil, which experience and common sense know cannot be eradicated. The public authorities try, and most effectually succeed, in making it as harmless, physically speaking, as it possibly can be. For it is a well known statistically proven fact that in no city of the world, in proportion to its population, is syphilis less than in Paris. It is an unknown or at least a rare occurrence that one becomes infected from a licensed *fille*. The admirable work of *Parent Duchatelet* on "Prostitution in Paris and in other cities of Europe," has proven this most conclusively.

And now to the *St. Lazare*. This is actually a female prison, containing about 1200 inmates, guilty of petty offences. A part of the ground, not of the building, is appropriated for a hospice for diseased licensed prostitutes. None other can be admitted, and to no other hospital can they be sent, or are permitted to go.

The *Lourcine*, as you know, is also a hospital exclusively for syphilitic females; but it is not under the control of the police. Syphilitic females from all classes of society, except licensed prostitutes, go there; the latter are *all* consigned to the *St. Lazare*. I attended one of the visits, and I had enough of it. I acquired all the information I desired. As in the *Lourcine*, the physician does not go to the beds, but the patients come into his cabinet; one after the other are *speculated*, prescribed for, or otherwise attended to, and sent away. The forms of syphilis there are necessarily *mild*. It never could have had an existence of more than a fortnight, for they were previous to their admission examined at least once every two weeks. The visit over, they are set to work; they do all the house-work, take in sewing, etc. They are superintended by the *Sisters of St. Mary and St. Joseph*, who, with that true Christian devotion due to their order, read to them, instruct them, lecture them, and endeavor to bring about a moral reform, whilst at the same time carnal evils are attended to. Many times they succeed in reclaiming and entirely reforming some of these lost ones. Daily, morning, and evening prayers are held in the sick-rooms, and Sundays in the chapel. There is also a Protestant oratory there, for the special benefit of those who may be Protestants. There is much liberality shown here in that respect. But not enough praise can be bestowed upon the

Sisters of St. Mary and St. Joseph, who make the moral reform in prisons their object. They speak of establishing themselves also in the United States. Give them a hearty welcome.

The treatment of syphilitic cases is extremely simple there. For the primary symptoms nothing but local applications and strict regimen. In the secondary, the proto-iodide of mercury is the main reliance. In the tertiary, the iodide of potassium is the sheet anchor. They are kept under observation a needlessly long time. Nothing can exceed the manifestation of joy when one of these nymphs obtains her congé.

The prison-part of St. Lazare, although out of my line, I could not resist seeing. It is more of a reformatory than of a penitential character, being similar but superior to our house of refuge. Here, also, the ministering angels, "the Sisters of St. Mary and St. Joseph," have the management of the inmates. Neatness, propriety, industry, are met with at every step. The influence of these sisters is indescribable. Many go out bettered—some of them entirely reformed. Instances of Magdalenism are not wanting among them.

Among fifteen hundred females, all in active exercise of sexual functions, pregnancy is not a rare occurrence. There is necessarily a part of St. Lazare appropriated for parturient women. It is just as good an obstetrical school as that of the Hôpital des Cliniques. The children born there are only kept six months at the furthest in the institution, and they are never permitted to learn the place of their birth.

I regard *St. Lazare* and the *Dispensaire de Salubrité* as the most important institutions of Paris, both in a social and a medical point of view. It should be visited by every American physician coming to Paris, and its utility made known, regardless of the obloquy which the subject may occasion. The benefit of similar institutions with us would soon be felt, and become of general municipal adoption; the fearful progress of this most loathsome disease would be stayed; the many crimes perpetrated in the houses of prostitutes would be necessarily abated. All the *post-facto* punishments are not of half the avail as the above enumerated police and sanitary regulations. Were these facts known in the United States, I have no doubt like measures would soon be adopted, and meet with general favor.

The *Hôpital de la Pitié*, of five hundred beds, is under the charge of the following staff of *medicins*: Gendrin, Narrotte, Noel, Gueneau de Mussy, Bequerel, Bermutz; and of the *chirurgiens*: Maisonneuve and Michon. This is another of those old, tumble-down hospitals of Paris which ought not to be suffered to exist. It is braced up by iron bars, else it would certainly be a heap of ruins. It is kept, as all other hospitals, in perfect order, and every bed is occupied.

The great lights in the medical department are Bequerel and Mussy. Though able and learned, they are yet poor teachers. An attendance at their cliniques is a waste of time.

In the surgical department is Michon, an amiable and able man and a good teacher. His cliniques are always instructive. He is plain, unassuming, but a good diagnostician, a sympathising and successful surgeon. He takes pains to explain the why and wherefore of his views and actions. They are in the main rational and up to the present state of medical science.

But Maisonneuve is the star of attraction. He is, by all odds, the boldest, nay, the most audacious surgeon, and the roughest and most brutal operator. His examinations are unpardonably painful. There is never a necessity for such a savage proceeding. There is an absolute want of sympathy for the sufferings of his fellow-men. I know the surgeon's examinations and surgical remedies must be necessarily painful; but these pains should not be unnecessarily increased. He will *undo* and *do* the dressing of every patient; and the brutality with which this is done is in the highest degree reprehensible. But he remains an object of admiration when handling a surgical instrument. He is rapid in his diagnosis, and his operations are quickly and skillfully executed. Nélaton temporizes, requires time to mature a plan; Maisonneuve, never. He never defers action—is always prompt and ready, and I dare say successful.

A patient came from another hospital, declared to have a *paralysis* of the right arm. In a moment's examination, he declared it to be an "*anchylose arthritique*." With a few vigorous and rapid movements of the patient's arm, which made him faint, but which stopped all further resistance, he broke up the arthritic adhesions, and the patient, on coming to, used his arm with ease. Another patient was sent him by Velpeau, who would

not touch him, but advised him to go to Maisonneuve, who would do what no one else would venture. It was an encephaloid tumor, involving the whole left side of the neck, from the mastoid process down to the acromion. Even Maisonneuve feared to use the knife. He applied the "*cautère à flèche*." He made about seventy or eighty punctures with the bistoury in the healthy parieties all around the tumor, and then thrust deep in a caustic, made of chloride of zinc and starch, of equal parts, which are made into a dough, rolled out with a pin, and then cut in long slices, somewhat in the shape of an arrow, and of unequal length. They must reach deeply so as to cauterize the very root and foundation of the morbid growth. The tumor was well detached on the second day. The patient did not suffer much, but there were left exposed to view and touch all the large vessels of the neck. I asked him, whether he did not apprehend that the caustic would affect these blood-vessels and cause a fatal hemorrhage? He said, that, in his experience, the caustic never affects a healthy tissue, which offers very great, although perhaps not insurmountable resistance to its effects; that if the blood-vessels were in a healthy condition, they would not be affected by the caustic; but if not, any other method would have been equally fatal. However, the patient does well.

Here, also, is the plaster of Paris used exclusively in fractures, both simple and compound and complicated. Maisonneuve is the very image of our worthy townsman, Dr. Engelmann. It would be very desirable if he would adopt also some of his gentle manner and kindness to his patients. One can only go to *see* him, but not to imitate him. His roughness is only equalled by his *waste*. Such a needless use of bandages, lint, etc., is unpardonable, and still less his manners to patients and his aides-de-camp. A little setting-down might do him good.

The *Hôpital Necker* on the *rue de Sevres* has 402 beds, 220 for males, 182 for females; is under the charge of Guillot, Monneret, Vernvis, Bouley, as physicians, and Moret Lavallée as surgeon, and Civiale as lithotritist. This institution was once a Benedictine convent, but since 1779 has been converted into a hospital. Like all buildings whose destination has been changed, it is illy adapted to its new purpose. Though large sums have been spent on it, the inconveniences are numerous. Even the

charitable and intelligent Madame Necker, who devoted her fortune and her life to it, could not make it what it should be.

The cliniques are about the same as in the other hospitals. There is no great light among any of the chiefs. The main attraction is doubtless the veteran Civiale, who only deals with urinary diseases, or rather with diseases of the urinary organs. Hence *strictures* he claims as his special province, though mainly arising from venereal causes. It is comforting to hear *him* say that obstinate strictures should and can only be treated successfully by *division*; and again the not less eminent M. Clerc declares that nothing but *dilatation* will do. Civiale insists besides that the fibres in the strictures of the perineal portion of the urethra are not dilatable, and must be cut. His urethrotome acts admirably and with perfect safety. He rejects the division of the urethra from without, and says he has never never failed to overcome all resistance, with different sized urethrotomes. He also uses the last instrument in order to prepare the way for the introduction of voluminous lithotrites. Civiale is very aged, but very pleasant in his manners, a good teacher, and a good rider of his hobby lithotritie. He only holds clinique on Saturday. Nearly always the same patients are brought into the amphitheatre, to have a small piece of the stone broken off and removed. It is both a tedious process and a painful operation, and exceedingly doubtful in its result. The introduction of large voluminous instruments into the urethra is extremely painful, requiring weeks of training or dilating before a person can endure it. It requires the utmost skill, and very long experience, to find and to catch the calculus between the branches of the lithotrite, then crush and remove it. It is usually only a small quantity which comes out, and that which is left behind serves as a nucleus for a new calculus. It takes months of treatment of lithotriting patients, and then with equivocal results.

I saw him *attempt* to perform the *hypogastric* operation to remove a large calculus, but he failed owing to having wounded the peritoneum. He of course adjourned the operation, not daring to puncture the bladder, and run the risk of having the urine get into the abdominal cavity. The patient was of course removed; he kept his stone, and got a gap four inches

long in the *linea alba* into the bargain. What he is going to do next with him, I will endeavor to ascertain.

19th.—I saw the patient since I wrote above; the wound healed by first intention. Civiale spoke of him in to-day's (nineteenth) clinic, and said he would now perform the lateral operation, crush the stone, and remove the fragments. This is the third time I have seen the hypogastric section attempted, and always with the like issue. But why Civiale does not break up the stone, and remove the fragments by the lateral section, I cannot learn.

I have never been a partisan of lithotritie, and indeed it appears to have made only little progress in this world. Of all the Parisian surgeons, it is only Guersant who occasionally practices it, and then only for major reasons. Without wishing to deprecate the practice, they prefer sending all suitable cases to Civiale. I dare say, after his death, it will be little thought of in Paris, or elsewhere, for reasons already assigned, namely: 1st, it being excessively painful; 2d, uncertain in its result; and 3d, interminable in its process.

There is also in the Hôpital Necker a *salle des nourrices*, a ward of nursing women. If either a nursing woman or a nursing child requires admission, both *must* be taken to it at once.—Mother and child are never separated. A humanitarian and rational measure, worthy of all praise and imitation.

The *Hôpital des Enfants*, on rue de Sevres, is contiguous to the above, and has 625 beds; 321 for boys, 305 for girls. Blache, Roger, See, Tessier, are the physicians; Giraldes, the surgeon, and Bouvier, the orthopedist. It is under the management of the Sisters of St. Thomas de Villeneuve, whose intelligence and devotion to the children are beyond all praise. Sister Lamoureux is a Parisian celebrity. Her coup d'oeil is worth twice as much as the most learned diagnosis of the chiefs and internes. There is a deference paid to her superior intellect, her unbounded experience, even by the savants of the profession. The attachment of the little children to her, and to her numerous coadjutors, is touching in the extreme. Nothing can exceed the cleanliness, neatness and order prevailing in this institution, where there are none but children. Three thousand one hundred and fifty-four patients were admitted in 1860 into this hospital; of which, one hundred and fifty-six cases were croup, among which tracheotomy

was performed one hundred and twenty-six times, and in three out of ten with a good result. Rather startling statistics, but true, as they are taken from the hospital register. More extensive statistics I will be able to furnish shortly, for 1857-'58. Dr. Millard's thesis for the doctorate treats this interesting subject in a most masterly manner. I will translate copious extracts and place them at the disposal of the St. Louis Medical and Surgical Journal.

This large number of cases of tracheotomy may be justly considered as over-doing the thing here; still allowances must be made. Children are brought in from all parts of the city in nearly an asphyxiated condition, and the operation may be the last resort in these desperate cases. The Internes and even the Externes are permitted to perform the operation, without advising the chief of it. In cold damp weather, they average two tracheotomic operations a night. They have hardly ever to perform it in the day time. Croup and diphtherite are considered in Paris as absolutely *one and the same thing*. They operate in croup only when the false membrane is limited to the larynx and trachea; but when the soft palate and tonsils are covered with the membrane, especially when the submaxillary glands are enlarged, when there is fetid odor, they never operate. They regard the case as hopeless. The mortality among the children in these hospitals is fearful. Diphtherite has been endemic in Paris for several years past, and they are not further advanced there than we are in the treatment. The chlorate of potass and the perchlorate of iron and nitrate of silver are their chief reliance. To the smallest operation performed here, even after the application of leeches, erysipelas supervenes. Though death does not often ensue from it, it is nevertheless a grave complication, and renders recovery very slow.

Gymnastics is one of the chief therapeutic agents used in this hospital, and, indeed, it cannot be too highly valued. All over Europe, I found in schools and hospitals extensive gymnastic apparatuses, under the supervision of a scientific gymnast, who has to have such exercises executed as the physician may recommend. Each patient gets his regular gymnastic prescription, wherein the different exercises are nomenclated, the frequency and quantity of it carefully assigned. The journal is carefully kept,

every incident and immediate effect recorded, and equally as carefully entered into the clinical reports.

Is it not time that the United States should follow this laudable example, not only in the schools, but also in the hospitals? Every hour's delay will only be a detriment to the rising generation. Gymnastic apparatuses should be put up and used only under the direction of a physician; a well taught and intelligent gymnast should see them well carried out. He is just as indispensable to the physician as the apothecary; for, unless the right kind of exercises are made, and these well carried out, more mischief than good will arise.

It sounds strange to hear at the clinique report: "A. B. took exercise No. 1, 3, 9, 13, etc.; 1 fatigued after ten seconds; 9 after twenty seconds; 1 did not fatigue, etc." An importance is attached to it which is not overrated. May it soon find a general imitation with us.

Tessier, one of the chief physicians in this hospital, treats his patients *homœopathically*. In examining the records and enquiring of the director, M. Imard, I could obtain no satisfactory explanation. These were his words, almost verbatim: M. Tessier is elected by *concours* as a regular physician; once appointed, he can treat his patients as he pleases; consequently his mode of treatment is only *tolerated*, not *prescribed*. The administration générale does *not* acknowledge it, but simply *tolerates* it. Besides, he added, the wards of M. Tessier contain only les scrofuleux, les tiegnes, et les dartreux, (scrofulous, scald heads, and herpetics,) which require little other treatment than cleanliness and good diet. However, his prescriptions for other remedies are abundant in the pharmacy of the hospital. He also uses up large quantities of cod-liver oil, wine of quinquina, etc., which are furnished to each ward in abundance, without an extra demand of the physician.

M. Tessier was for several years in the hospital *Beaujon*—had charge of a ward. I will glean all the information possible. You know me well enough to believe that I will do it with the view of eliciting truth, and not with the intention of finding fault.

Hôpital Ste. Eugénie, only open since 1840, under the name of *Hôpital Ste. Marguerite*. The present Empress having richly endowed it, in 1864 it assumed its present name. Like the pre-

vious one, it is for the exclusive use of *sick children*; has about 460 beds. Barthez, Bouchat, Bergeron, are the physicians, and Marjolin the surgeon—all very able men. It is under the charge of Sisters of Charity. Being in a more populous and in a manufacturing part of the city, (rue faubourg St. Antoine,) the character of diseases is somewhat different, and surgical cases prevail. There are a great many cases of fractures: the courteous and eminent surgeon Marjolin had several set in one clinique in my presence, in order to give me an opportunity to learn fully his system. Here, as in all other hospitals of Paris, the *immovable* apparatus is used. They agree upon the principle, though the means vary. In many, the plaster of Paris is used; in others, the dextrine (parched starch), etc.; but in St. Eugenie, Marjolin uses the starch scultete, made of ordinary packing paper. He prefers it to cotton or linen, because it does not contract. It is a beautiful, simple, light, and solid apparatus. (He is eminently successful in his treatment of fractures.) It is easily applied, and always without complaint. I am glad the days of splints are passed. Neither in Berlin, Brussels, nor Paris, did I meet with one. I hope they will be abolished in the United States.

An interesting case of a *tumeur sanguine*, of eleven years' duration, seated on the submaxillary bone, operated on many times, always with fearful, alarming hemorrhage, was the last time punctured by Marjolin, and perchlorate of iron injected, with good success. It is not a *nævus*, but has its seat under the periosteum. I have got the case in printed form, and will either translate it first, or send it on, and let you do it.

Erysipelas and diphtherite are very abundant here. Insufflations of tannin, alum, or both combined, are much used by Barthez, and with success. It is easily done by means of a simple india-rubber ball, attached to a wooden tube, the orifice of which is covered with a septum of muslin. The tube contains a small quantity of the above remedies finely pulverized; small pressure on the ball will at once blow it over the soft palate, epiglottis, and during an inspiration even into the larynx. Being readily soluble, it causes no inconvenience, and produces the same and better effect than sponging, but minus its annoyance.

ARTICLE II.

Diphtheria.—Belladonna in its Treatment. By N. E. JONES,
M.D., of Circleville, Ohio.

Mssrs. Editors:

In your journal, for September and October last, are some pertinent and instructive remarks upon diphtheria; a disease which has extended over this section of country epidemically during the past four months.

Theoretically diphtheria has been pretty fully if not satisfactorily discussed. The thing which interests, and is of importance to the public and to physicians is, "what will diminish the mortality and divest the disease of the fearful consequences that now mark its steps over the States?" "What treatment will modify grave cases favorable to health, and, more than now, prevent milder ones assuming formidable complications. Dr. White, in his remarks before your Society says of this disease, "different remedies of a kindred class may be suitable in one and contra-indicated in another case." This is undoubtedly true to some extent, so far as idiosyncrasy may exist among individuals; but ordinarily medicinal remedies act as modifiers with a commendable degree of certainty; while epidemical impressions upon the organism are even more uniform than our best therapeutical agents.

The same disease may differ in its symptomatology in different individuals; the manifestations arising from alike impressions may not correspond in each and every case; but the primary impression being the same, and dependent upon the same cause or causes, they will alike be mitigated, modified or removed by the use of the same class of curative agents.

There are in the treatment of disease medicines which we say constitute the *basis*, and then, according to circumstances, we may have *adjuvants* and *corrigents*: the basis may enter into the treatment of every case; the others to meet special indications that may arise or be found existing. Quinine is the curative agent, the basis, in the treatment of marsh fever; cathartics, alteratives, and anodynes, may or may not one or all be necessary to the more successful treatment. Quinine, however, being the curative agent, is given equally successful in all the various manifestations aris-

ing from this same epidemic or endemic cause. This we give merely to better illustrate our confidence (not in specifics) in curative agents, being alike adapted to the great majority of cases of disease excited by the same cause, and which produces that uniformity of manifestations in the organism we term epidemic and specific.

Not to theorize—we come to you and your journal in consultation: What is the treatment for diphtheria? Dr. White says, it resolves itself into

I. To arrest the exudation by constitutional treatment.

II. To remove the exudation by local remedies, and

III. To guard the organism against sequelæ.

To arrest the exudation by constitutional treatment is the important point: this first fully embraces the second; and, we would amend Dr. White's arrangement, with due respect, by substituting

I. To arrest the constitutional manifestations and exudation, and

II. To guard the organism against the sequelæ.

To remove the exudation by local remedies has never in our observation or experience been of the least advantage, and we feel confident, many times, great mischief has followed the application of caustic, astringent and stimulating applications. If the exudation is within reach of topical applications it is perfectly harmless, and the patient will recover quite as rapidly without as with them; and when extended where it endangers life, unfortunately the trouble is beyond their reach, at least, to a degree which makes them all alike equivalent to failure. As regards the use of iodide of potassium as an alterative we have not (after considerable experience) the most remote confidence in its power to cause the arrest of exudation.

The chlorates, topical applications, newspaper recipes, and gospel specifics, have alike produced numerous recoveries, while many have died here and elsewhere under all kinds of treatment; the truth being, as every intelligent physician knows full well, that most if not all the would-be cures are to be attributed more to the nature of the attack and curative forces of the organism than to any one or all the remedies used. The cases that would prove fatal without treatment have died with treatment. Therefore it

is not of so much importance what will shorten the duration of pain or fever, as what will arrest consequent fatality.

The administration of quinine in free doses during the early stages of the disease in this and other ague districts has seemed conducive of greater benefit than any other remedy in extensive use; yet, quinine alone or in conjunction with the chlorates or iodide of potass, or combined with iron and topical applications, has so often failed in our own hands and under the supervision of other practitioners, that our confidence in them singly or combined, to favorably modify, arrest or prevent fatal exudation, is quite annihilated.

In the abandonment of one idea or object for that of another, we freely admit is not the least surety the one in possession is any way more meritorious. But the success which has attended the administration of belladonna by way of experiment at different periods of over three months, has induced these remarks; not that the field has been sufficiently extensive or experiments protracted to establish anything but to call the attention of the profession in localities where the disease now exists to these hints; that they may make further observation upon what has seemed to us a most potent remedy in arresting the constitutional disturbance and exudation. The impression of belladonna upon the nervous system and its specific action upon the fauces and larynx, might seem philosophically enough to warrant its administration. And our experience so far would tend to establish

I. Belladonna given to intoxication arrests membranous exudation.

II. Given early in the febrile stage cures by resolution.

III. Causes softening and detachment of exudations in an unusually short space of time.

The remedy should be pushed to slight intoxication or delirium. We give it in solution of chlorate potas. every hour, until manifest impression is produced; then diminishing the dose and increasing space of time so as to keep up steady action of the drug for twenty-four to thirty-six hours; continuing the treatment with quinine and iron. This with us has been either accidentally fortunate or remedially beneficial above any other treatment adopted, taking into consideration the nature of most of the cases where the belladonna was instituted. We allude more particu-

larly to those cases with great constitutional disturbance or croupy cough, with heavy exudation on posterior margin, tonsils and velum palati, and which too often under ordinary treatment soon run into distressing dyspnoea and death.

We speak with a knowledge of the many fallacies in medicine, when we say belladonna has appeared to exhibit a most singular and satisfactory influence not only over the constitutional disturbance but also the existing local manifestations of diphtheria, and we solicit a fair and impartial test. We do this from the fact, there are cases where ordinary treatment if not useless is inefficient, and in calling the practitioner from that path which has a thousand times proved the road to death; nothing may be lost, although this, too, may prove incompetent to the emergency of the sufferer.

ARTICLE III.

DIPHTHERITIS OR DIPHTHERIA.

Pharyngocacé, Angina Gangrænosa seu Pestilentialis. By
A. DE LEZYNSKI, M.D., of Paducah, Ky.

The *character* of this disease is *typhoid*. I classify it with the *typhoids of the mucous membranes*.

Not intending to enter, at present, upon a long discussion of its physico-chemical nature, since I leave this for a future day, I shall confine myself to the most necessary points. Diphtheritis assumes three periods, according to which the symptoms will be of a different character:

1st. Period, of irritation.—Symptoms.—The patients complain of some pain when swallowing. The fauces appear slightly reddened, and one, rarely both tonsillæ are swelled. The voice becomes hoarse; *no fever*. This status will last from five to twenty-four hours, and changes into the

2d. Period, of secretion.—The fauces are livid, their mucous membranes are covered with a product that, at first, appears pellucid, but soon assumes a whitish, ashen, yellowish, then brownish hue, and soon becomes firm enough to be torn off with a forceps. Beneath this pseudo-membrane the *mucous membrane*

appears covered with dots of extravasated blood, which, although infiltrated, is entire. (It is said, by good authority, that even external erosions, *f. i.*, the surfaces of blisters, are, at this time, covered with these peculiar products.) If art does not interfere, this pathological product increases rapidly, involving the mucous membranes of the mouth and air passages, and enters the ear by means of the eustachian tube. Deglutition becomes difficult, the salivary glands and mucous membranes of the mouth secrete a corroding saliva and mucus. The skin is dry and hot; the pulse weak and rapid; the psyche depressed; the fæces retarded; urine brownish, reaction sour, its secretion is scanty; the breath, at first sweetish, soon becomes very offensive. Duration of this period is from three to six days.

3d. Period, that of gangrenescence.—Like all typhoid products, the pseudo-membranes formed by this process originate from albuminous exudations, and like them are subjected to softening and necrosis. In consequence of the latter, the tonsils, soft palate, the uvula, and portions of fauces, corrode in the manner of any other gangrenous ulcer. The breath is insufferable. Every other symptom is that of “typhus gravior” in its last stage, with this exception, that here we also observe symptoms similar to croup, and frequently there, where the course of this disease has been very rapid, or where the first two periods have been overlooked, the physician is called to a *case of croup*.

From the foregoing it will be easy to distinguish diphtheria from two diseases resembling it. The one is *Fégarite* or *Stomacacè*, the other *Angina Scarlatinosa*. But even a mistake here would be of little amount, since, in my opinion, all are of the same nature, and will bear nearly the same treatment.

Treatment.—This subdivides into *local* and *general*. The object of the *local treatment* is a destruction of both the product, (so that during softening it cannot affect the contiguous parts,) as well as a partial, but very circumscribed, destruction of the secreting surface, thereby causing normal secretion.

For local applications, I select, according to the progress of the disease, the following remedies: Sulphate of copper, nitrate of silver, undiluted acetic acid, nitric acid, either diluted or pure, using the weakest caustic in the lesser, the stronger in the severer forms or stages of this disease. The frequency of their applica-

tion depends upon the severity of the form, etc. As a general rule, I cauterize about once in twenty-four hours, but have the secreting surfaces washed several times in this period with a solution of alum in water and honey. There, where the cantery would be too slow, or where the pseudo-membrane threatens to dissolve, I remove it with a pair of forceps and afterwards cauterize the secreting surfaces. Besides this, I produce external counter-irritation upon the affected parts, by the tincture of iodine.

The general treatment, during the first and second period, I open with an *emetic*, consisting of a mixture of ipecacuanha, tart. emeticus, and syr. of squills. Its object is less to produce emesis, than general effects upon the entire, in specific, the ganglionic system. This I follow, persistently, with sulph. of quinine, iron and opium. Of the former I prescribe, according to age, doubling the number of years by two grains, *f. i.*, for a child six years of age, $6 \times 2 = 12$ grains of quinine per twenty-four hours. When arrived at the age of fifteen years I cease doubling. With some exceptions the practitioner will find this a fair schedule. Of *iron*, I prefer the muriated tincture. The quantity I leave to the option of the reader. Of *opium*, or rather its tincture, I give just enough to prevent the quinine causing diarrhoea. The entire I give in a solvent, *f. i.*, pure water, and continue this prescription during the first two or three days. Afterwards I relax and give smaller doses, but do *not* discontinue this treatment until all fever has ceased.

During the third Period, instead of the muriated tincture of iron, I prefer the sulphate, and am in the habit of giving to a grown person (fifteen years of age), from 15 to 20 grains, and of the tinct. of opium from 19 to 57 drops (containing from one to three grains of opium) per twenty-four hours.

Under this treatment, if the destructions are not too great, the colliquative diarrhoea will soon cease and the patient recover. In case the disease has made its progress into the larynx, threatening suffocation, *tracheotomy* ought to be performed without delay. As much as I do rely upon these remedies, I do quite as much depend upon a generous diet. Broths, vegetables, acid fruits, and generous wine, ought to be given to the patient, certainly not too much at a time, but by no means in stinted proportions.

ARTICLE IV.

Complete Osseous Anchylosis of the Knee-Joint. Barton's Operation modified by Buck. Successful Result. By CHAS. A. POPE, M.D., Prof. of Surgery in the St. Louis Medical College.

Messrs. Editors: As you request of me an article for your journal, I have thought that a report of the following case might prove of interest to your readers, especially as this operation has as yet been performed in but a very limited number of cases.

The patient, Mr. A., a saddler and harness maker by trade, aged forty, of good constitution, received, when about ten years old, an accidental gun-shot wound, the ball passing just below the right knee-joint. The articulation became secondarily involved, and its complete osseous anchylosis was the result.

The limb was permanently flexed at near a right angle. For long years he had worn a wooden peg, with the knee resting in a socket at its upper extremity, for purposes of locomotion. In walking, the foot and leg projected inconveniently backward, whilst in sitting the wooden appendage stuck out still more awkwardly in front. So that in this, as in other respects, the annoyance was so great, that he had been led to seek relief, if possible, by an operation. The anchylosed limb was, as usual, smaller than its fellow.

The nature and risk of the proposed operation having been fully explained to him, he expressed a decided wish and determination to have it performed.

As the patient preferred to be operated on at his own home, in Marine, Illinois, I consented to go over there for the purpose. Drs. Smith and Gregory of this city accompanied me, and together with Dr. Jno. S. Dewey of Marine, assisted me in the operation, which was performed on the 14th of March.

The patient being under the full effect of chloroform, I made a long semicircular incision through the integuments, commencing at the upper part of the internal condyle of the femur, sweeping round in front just above the superior edge of the unrecognizable patella, and terminating over the external condyle. This cap-shaped flap was carefully raised from the bone, and dissected well

back to the convenient distance of nearly five inches. A fine saw was now entered at the most prominent part of the bony angle, the apex of the knee, and directed obliquely upward and backward toward the posterior surface of the femur a short distance above the condyles. A second section was then made with the saw, from the front of the femur, so as to fall on the first without entirely severing the continuity of the bone. A few posterior fibres were purposely left in order to prevent any danger to the popliteal vessels, and also to assist by their slight irregularity when broken, in the subsequent adjustment of the bones. The flat wedge-shaped piece of bone thus removed measured $4\frac{1}{2}$ inches long, $1\frac{1}{2}$ inches thick, and $3\frac{1}{2}$ inches at its broadest part. The angle removed was 91° , that being the complement of the angle of deformity. The limb was now laid on a double inclined plane, the angle of which could be varied at will, by means of a screw. Having closed the wound by points of the interrupted suture, a moderate extension was made on the foot, which caused the rupture of the thin posterior portion of bone left undivided. The patient bore the operation well, having felt no pain. I then left him in the care of Dr. Jno. S. Dewey, a gentleman of high intelligence and professional worth, to whom I am indebted for the subsequent details of the case.

March 15th. Mr. A. after the operation had no depression, and no reaction; his pulse all night was 80 per minute. Gave him two doses of morphine four hours apart. This afternoon his pulse rose to 90. No pain, but some swelling and redness; skin adhered wherever there is contact: blood oozes slowly from the wound. Extended the foot by means of a screw, which, for a few hours, produced slight spasmodic contractions of the muscles of the thigh.

16th. Pulse 100; no pain; swelling very little increased; extended the foot an inch, with less muscular resistance. Has not missed a meal, nor an hour's sleep. Expresses the utmost confidence that all will go well.

17th. Pulse 84—rather small—has just had a discharge from his bowels. Gave him toddy, which increased the volume, but not the frequency of his pulse. Toddy continued every four or six hours. Wound is much as it was yesterday; skin not quite so red; the serum that oozes from the wound is nearly colorless;

no pain. Extended the foot one inch ; appetite good, sleep quiet. The patient is elated with his prospect—says he knew that he would do well. He is often raised up in bed to admire the progress made in bringing down his foot.

18th. Pulse 88, with good volume—discharge from the wound is dark and tenacious—bowels move every day ; sleep is quiet. Toddy discontinued. Foot extended until it is uncomfortable, every morning, when the system is most relaxed, and do not interfere with it again that day.

21st. Did not rest well through the night ; bowels not moved for thirty-six hours. Gave unusual distress in extending the foot, in the knee, and along the femur ; pulse 100. Ordered a dose of castor oil, and a teaspoonful of sweet spirits of nitre, every two hours ; discharge from the wound light-colored, thin and increased in quantity. This afternoon patient is very restless ; pain along the femur and in hip-joint ; pulse 108, and small ; drew up the foot a very little with the screw. Gave $\frac{1}{4}$ grain of morphine, and in an hour an enema.

22d. Rested well ; pulse 100 ; appetite good ; discharge from wound darker and more tenacious ; the knee tender ; did not extend the foot ; bowels not moved. Ordered oil—discontinued the nitre. I fear the foot will not be brought down any further, without serious consequences. The knee is now raised but five inches above a straight line.

23d. Bowels have been moved copiously ; pulse 88, more volume ; no pain ; discharge dark, tenacious, less in quantity.

24th. Pulse same as yesterday ; no pain ; the flow from the wound is again dark and thick ; appetite good ; sleep quiet ; very little swelling.

30th. Pulse 88 ; matter lighter colored, the quantity probably $\frac{3}{4}$ ij per day.

April 1st, 2d, 3d. Patient about the same.

4th. Discharge from wound less—agreed to leave leg in its present position, the bend being three inches from a straight line.

5th, 6th, 7th. The same—scarcely any matter—patient sits in a chair and rests his foot on another ; has had no pain of consequence ; has not lost a meal, but eats and sleeps like a harvester. Takes occasionally of Edinburgh ale. The case now progressed well.

In reply to my enquiries, some months after the operation, Dr. Dewey wrote me as follows :

Dear Sir: You ask me the result of the operation which you performed on Mr. A's knee. It could not have been more satisfactory. I saw him a few days since, wheeling a heavily loaded wheelbarrow. He walks without a stick ordinarily, and the angle at which his knee is ankylosed, is that which he himself chose, with the advice of his friends. He says that no amount of money however great would induce him to have the leg back in its former position.

ARTICLE V.

PROCEEDINGS OF THE ST. LOUIS MEDICAL SOCIETY.

BY

THOS. KENNARD, M.D., REPORTING SECRETARY.

Dr. Kennard read an essay on Diphtheria, being part of a report made by the Committee on Diseases of Women and Children. He gave a succinct account of the history, nature, ætiology, pathology and diagnosis of the disease, together with the best modes of treatment. (See Journal for March.)

DR. LINTON. In many particulars I fully concur with the views expressed in the paper just read before the Society, but cannot think Diphtheria a specific disease, nor see how the exudation characterizes it as such. I regard it rather as an epiphenomenon than as a separate and distinct disease, and believe the exudation is only one termination of inflammation, a mere result of disease. There are many cases where the disease does not go so far as formation of false membrane, and yet, in my opinion, are real genuine diphtheria—the same in essence as when the false membrane does form, only not quite so violent. It is merely a termination or result of several peculiar diseased conditions of the system. I have seen it combined with scarlatina, having a similar eruption as that disease and yet terminating with the exudation in the throat, and have known scarlet fever to terminate fatally without any eruption whatever. The two diseases seem to be very much alike at times and to be of a similar nature. Not long since I was called in consultation to see a case which the attending physi-

cian called croup; I thought and pronounced it scarlatina; the patient's friends feared it might be diphtheria, and on examining the throat the exudation was there, and the case was really a combination of all three. There was the croupy cough, the scarlatina eruption, and the diphtheretic exudation. So we cannot separate them and ought not to regard the name of the disease very much, but treat it according to its nature. To illustrate: in yellow fever the skin is yellow and we have black vomit, but all cases of fever with yellow skin are not yellow fever, nor do all yellow fever patients have the black vomit. So all cases with exudation of false membrane on the fauces are not diphtheretic, nor do all cases of true diphtheria have the false membrane. In regard to the treatment, I agree with the views in the essay, but have seen cases in which emeto-cathartics seemed to be the best remedies. I do not rely much on local applications, but never had any experience with turpentine as recommended, but suppose it would answer as well as any.

Dr. WM. JOHNSTON. I cannot agree with Dr. Linton, but must consider diphtheria specific; the false membrane, which is peculiar to it, distinguishing it from all other diseases. The London Lancet, during the past two years, has contained many valuable papers and discussions upon this disease; among others will be found a report from a special committee composed of some of the ablest men in England, and in that the diagnostic differences between this and kindred diseases are clearly pointed out. The committee state that scarlatina is a separate and specific disease, not the same as any other whatsoever, and of course we must logically conclude diphtheria differs from it; so also with croup. Scarlatina poison seems to manifest its effects most plainly on the skin, whilst diphtheria affects chiefly the mucous membranes, and selects by preference the mucous membrane of the throat. Now there is evidently some peculiar, specific cause which determines the poisonous influence first to the mucous membrane, and by preference to the throat. According to the history of the disease, these peculiarities have characterized it from a time previous to the birth of Christ. We have no case on record of scarlet fever terminating in diphtheria, nor vice versa. Of course, cases vary greatly and need different treatment. I do not believe in the unity of disease as Dr. Linton seems to, but think certain poisons do pro-

duce peculiar diseases; and when we find a marked symptom, as the exudation in diphtheria, presenting itself in every case, it ought to characterize it and entitle us to name it. The yellow fever illustration will not apply, because yellowness of skin is not confined to that disease, while the peculiar exudation is to diphtheria. It is admitted that two distinct diseases may prevail in the system at the same time; if so, I contend that they must be dependent upon specific and separate causes.

DR. NEWMAN. I agree with the ideas expressed in the report, and think diphtheria is truly specific and different from scarlatina, croup, or any other disease. These diseases may supervene upon each other and be complicated, but are not one and the same. The high fever, hot skin and quick pulse of scarlet fever do not characterize this disease. It is impossible to find a name which precisely indicates every case of any disease; but I think the name diphtheria a most appropriate one, representing as it does the most universal and characteristic symptom or effect of the disease, the exudation on the mucous membrane; which, however, is not a constant accompaniment, as, I believe, with Dr. Linton, some cases do not go so far as formation of false membrane.

Dr. Newman said he dissented from the views suggested by Dr. Linton, both in regard to the essential character and treatment of Diphtheria, but he desired *especially* to enter his protest against the treatment as suggested by the doctor. Dr. Linton's position in the profession was such that the bare announcement of his views would be regarded by many as authoritative. Dr. L. had said that this disease was similar in nature to croup, scarlatina, &c., and amenable to similar treatment, as calomel, emetics, &c. Dr. N. was satisfied, from all the cases which had come under his observation, that, if this treatment were followed out, the disease would be much more fatal than it is. In diphtheria the vital powers are depressed at a very early period, suggesting a sustaining and stimulating treatment; whereas in croup the opposite is true, and no treatment is so efficient as calomel, emetic tartar, &c., as suggested by Dr. L.

DR. COONS agreed with what he had heard of the report, and thought diphtheria was really a specific disease. All acknowledge, that a peculiar disease, different from any other known to us, and presenting this formation of false membrane as an almost con-

stant symptom, has prevailed to a great extent in this country and Europe during the past five years. It has, during the same period, been observed, that scarlatina, rubeola and kindred diseases have manifested a greater tendency to formation of exudation upon the mucous membranes; but why this tendency does show itself we cannot say. After the epidemic of cholera, which proved so fatal here years ago, almost every disease seemed to affect the bowels, just as now we observe the tendency to throat affections. I think diphtheritis is a more characteristic name than diphtheria, designating as it does the inflammation of the parts.

DR. MONTROSE A. PALLAN said, some microscopists think the exudation not a false membrane at all as in croup, but a true necrosis of the mucous membrane.

DR. KENNARD said, he still saw no reason why diphtheria was not a specific disease, and thought there was no necessity of confounding it with either scarlatina, measles, or croup; for the symptoms and course were very different, though similar in some respects. The course of progress and decline of scarlatina was marked and always the same. Not so with diphtheria; the skin was hot and dry, the fever burning in the former disease, the reverse in the latter. The eruption was an almost universal accompaniment of scarlet fever, but a rare exception in diphtheria; the exudation in the latter disease was false membrane, in the former no such thing; in the one, ulceration beneath the exudation occurred—in the other there was no sloughing, nothing but a bright shining membrane was seen beneath. In the treatment of one, anti phlogistics were necessary; in the other, very rarely to be employed, stimulants being the remedies. Croup also required antiphlogistics and was confined much more strictly to young children, and there was far less chance of recovery from it. He said no case was true diphtheria where no exudation could be seen, as that was the characteristic or designating symptom. Location had no influence, or but very little, upon it, as shown in the paper read. He thought it much better to have a separate name for it, than to call it a mere termination of a variety of diseases, as Dr. Linton seemed to consider it.

Dr. Johnston related the history of two well marked cases of diphtheria which he had recently treated. They were bad cases and both had recovered. He employed first emeto-cathartics, and then

administered small doses of iodide of potassium and quinine, and in one case used chloride of sodium and vinegar as a local application. He could not say whether their recovery was caused by the remedies used or not, but he had great reliance upon iodide of potassium and quinine.

DR. HODGEN. After the operations of Tracheotomy that I have performed for the relief of throat affections, that must have terminated fatally by suffocation without it, I have been much troubled in keeping the tube free. In my last two cases I have used an instrument made of tinned wire, on the principle of the spring speculum for the eye, and succeeded with this instrument in maintaining the opening free. The instrument is more easily introduced than the trachea tube, and does not demand that a portion of the trachea should be removed, as is necessary when hooks are used to keep the soft parts out of the way.

I wish also to call the attention of the society to another instrument of my own. This instrument is intended to be passed into the larynx, between the vocal cords, with the blades closed, and when they (the blades) are opened sufficient space will be left between them to allow the expulsion of any foreign body that may have been accidentally introduced into the air passages. The instrument consists, as you see, of two blades with their flattened extremities half an inch wide, (having a curvature of one-fourth of a circle, whose diameter is four inches,) hinged one upon the other five inches from the point, and having handles five inches in length. In using this instrument the index finger of the left hand may be used as a guide, and as the vocal cords are elastic, the instrument may easily pass between them; this operation being obviously less difficult since we know that the epiglottis does not, at any time, close over and cover up the laryngeal fissure.

He thought the forceps could be introduced more easily than the probang, and, if so, the vocal cords could be dilated sufficiently to allow the escape of a moderate sized foreign body, simply by opening the handles. He had invented the instrument with the hope that it might supersede, in such cases, the necessity for tracheotomy, but, as yet, had had no chance to try it.

Dr. POPE said Marshall Hall exhibited to this society an instrument of his invention, very similar to the wire speculum shown by Dr. Hodgen, and he himself had had one very like it, but it would

not answer the purpose. The best mode of procedure was to fasten back the flaps, made by the incision, by means of small hooks, and then cut out a small portion of the trachea, thus making a permanent opening, one which could be kept free as long as necessary.

THE LARYNGOSCOPE—ITS IMPORTANCE IN THE DIAGNOSIS OF DISEASES OF THE THROAT.

Dr. MONTROSE A. PALLER called the attention of the society to the use of the laryngoscope, as improved by Czermak, of Pesth. This instrument is intended and well adapted for aiding in the physical diagnosis of diseases of the throat. As now employed by Czermak, it consists of a circular mirror with a round opening in the centre, similar but of greater diameter than that of the ophthalmoscope, with a small reflecting mirror, mounted on a stem and arranged at an angle of about 45° , and, with my improvement, the handles attached at right angles to the horizontal shaft, so that the reflecting mirror can be held in the pharynx whilst the hand of the operator is at the side of the face. Either sun or artificial light can be employed, and, with a strong light, the mirror will illuminate the whole pharynx. Then the small mirror, heated to the temperature of the mouth (to prevent condensation of the breath) can be gently introduced and placed against the velum palati and uvula. He had used the reflector of Desmarres' ophthalmoscope to reflect the light either from sun or gas light. By means of this instrument, properly used, we can make a thorough exploration of the pharynx, larynx and upper portions of the trachea, and Czermak says he has seen the rings of the trachea and bifurcation of the bronchial tubes; but I have never seen so far. On elevating the epiglottis by expiring we can see the interior of the glottis, with its vocal cords, and we may easily view the whole of the larynx. We must remember in making our examinations that everything is seen reversed, by action of the reflecting mirrors. We will find our examinations give rather negative results, and frequently but very little organic change is seen in grave disorders of the throat; e. g., in chronic hoarseness, we sometimes see little or no structural change; in one of long standing, I found nothing but slight œdema of one vocal cord; in another case of aphonia, there was found on each vocal cord a

very small diaphanous or translucent tumor; in phthisis laryngitis, I have not detected any tubercles. In another class of sore throat, which I propose to call *gluco-laryngitis*, because it arises from a stomach deranged by too free use of sweets, we find no disease below the pharynx and edge of the œsophagus. I have now used this instrument in quite a number of cases and think it an invaluable aid. It requires practice and delicacy of touch to be able to introduce this instrument without exciting an effort to eject it, but almost any throat can be schooled to its use.

GONORRHOEA.

Dr. KENNARD said the subject of gonorrhœa, its nature and treatment, had been proposed for discussion two meetings ago, and, as nothing was of more interest to the profession, he would like to hear if any of the members had tried the treatment of this disease by alkalies, as recommended by Weeden Cook of London, who says that the treatment by balsams, which is always offensive, is rarely necessary, and that his mode of treatment by rigid diet, alkaline carbonates, and weak injections of sulphate or chloride of zinc, would prove successful, in almost every case, in a very short time. He recommends acetate of potash, one and two drachms daily, in divided doses, and in more obstinate cases combines chlorate of potash with the acetate. Dr. K. had used this treatment in five or six cases and with eminent success, and no inconvenience to the patient. One of our army surgeons had recommended simple injections of chlorate of potash frequently repeated. The rationale of the alkaline treatment is that we thus correct the acidity of the urine, which, in passing over the inflamed mucous membrane of the urethra, is one of the principal causes of pain in micturition, and tends to keep up the inflammation. The plan was certainly much more agreeable to the patient than any other yet proposed, and so far seemed more satisfactory to the surgeon.

Dr. WM. JOHNSTON thought we could find no disease more troublesome to treat than gonorrhœa, particularly the chronic cases, and, as yet, he knew of no very satisfactory method of curing it. In the winter of 1836 he heard Dr. Dudley of Kentucky say that this was a specific disease, caused by a specific virus, running a specific course, and no remedies we yet knew of would shorten

its duration, and, for himself, he rarely used any but hygienic measures. We all now believe that this great man was entirely wrong, for various modes of treatment do cut the disease short and cure it; still we do not fully understand its nature and mode of propagation. We read that about the year 1494, in Naples, in Rome, in Spain, and elsewhere, both forms of venereal disease appeared, and in many cases the syphilitic ulcers were so violent and destructive, that the disease was thought both infectious and contagious; now we know it requires actual contact to produce it. We also know that leucorrhœa and other non-virulent discharges will produce the disease; but how it is propagated when once communicated, we do not so well understand. I think it must be by the so-called law of fermentation, that the pus, when once applied to a part, extends itself along the urethral canal. Some English physicians are now contending for this theory, and I think it the most satisfactory explanation. The treatment recommended by Cook is an old one. How do the injections of chloride of zinc act? by causing a new inflammation and thus curing the existing one, or by acting chemically as an antidote to the gonorrhœal pus? I imagine it must be by changing the nature of the inflammation.

Dr. KENNARD. If we undertake to argue the origin of venereal disease we would never come to any truthful conclusion. I do not believe that it originated in the New World and was imported into the old for the first time in 1494, as many have contended, but believe the disease has existed almost ever since the creation of man, and has been the same in nature for thousands of years that we find it to-day. Gonorrhœa is the same now that it ever has been; but ignorance, superstition and false modesty no longer prevent us from seeing and studying it in a scientific and accurate manner. Thirty years ago, our ideas about the origin and pathology of the various venereal diseases were confused and unsatisfactory. Hunter, whose views were then the most generally accepted, believed the source of gonorrhœa and syphilis were the same and identical, and that they differed only in form, according to individual peculiarities and intensity of the poison. Benjamin Bell, in 1793, opposed the idea of identity and contended they were not the same at all, and showed that venereal pus would not produce gonorrhœa. Occasionally, however, secondary syphilis seemed to follow simple cases of gonorrhœa, and this puzzled

the opposers of Hunter. Ricord, in 1830, commenced his examinations of the subject in Paris, and, in using the speculum in females, soon found that what some thought simple gonorrhœal discharge, really came from a chancre high up in the vagina or even on the neck of the womb, and that balanitis was often due to a chancre under a long prepuce. After extensive and accurate experimentation, he determined conclusively, that pus from a non-ulcerated mucous surface would not produce chancre, and vice versa. Again he proved that simple gonorrhœa was not necessarily produced by a specific virus, but that a discharge from a mucous membrane could be caused by almost any irritant, and that the acrid vaginal discharges from women not diseased, from those having leucorrhœa, or their catamenial flow, would produce gonorrhœa in many instances. He proved that the majority of cases of gonorrhœa were benign, and when virulent we could always discover a concealed chancre; and also, that although the disease most generally attacked the genito-urinary organs, it would also disease any mucous membrane, and produce gonorrhœal ophthalmia, &c. He showed also that balsam acted locally in curing this disease, changing or soothing the inflammation by passing over the mucous membrane of the urethra, after passing through the blood and in the act of being excreted in the urine. They exert no beneficial effect in females, in males suffering from hypospadias, in gonorrhœal ophthalmia, or by being injected pure into the vagina of females.

The abortive treatment by injections of nitrate of silver, varying from 10 to 40 grains to an ounce of water, at one time quite common and highly recommended, has proven dangerous and uncertain, producing sometimes ulceration of the urethral canal, abscess of the perinæum, inflammation of the bladder, and other complications. It is much safer and more satisfactory, where the patient desires a rapid cure, and applies before violent inflammation, pain and discharge has set in, and is willing to keep in bed for a day or two, to employ, as abortive treatment, injections of five grains of nitrate of silver to the ounce of water, thrown well into the urethra by a long nozzle syringe, and retained there for four or five minutes; and if this does not cause much pain or answer its purpose, we must use a stronger solution of eight or ten grains to an ounce of water. Afterwards confine the patient, give

a good cathartic, so as to produce free action of the bowels; direct total abstinence from food, and frequent bathing of the penis in water as warm as it can be borne; and as the pain and discharge subside, use weak injections of sulphate of zinc, one or two grains to the ounce. A cure may this way be effected in a few days.

When we do not employ the so-called abortive plan, I much prefer the alkaline treatment (from a limited experience) to that by balsams. So far I have relieved my patients in a short time, and certainly in a much more agreeable manner than by the usual methods. Of course we cannot cure all cases thus; sometimes we will need balsams, and often tonics.

Dr. POPE. I think but little or no improvement, in the treatment of this disease, has been made during the last half century, and believe the best remedy is rest, absolute quiet, with diluent drinks, cathartics to keep the bowels rather open, and weak injections of sulphate of zinc, which I prefer to all other injections; the trouble is not to stop the discharge but to prevent its returning. In a vast majority of cases of chronic gonorrhœa, the discharge is kept up by commencing stricture, and no remedy is half so beneficial as the repeated introduction of the silver or polished steel bougie, three times a week, or every day, as the case may require. In many of these cases, the mental influence is the worst to counteract. The worst case I ever had to treat was that of a preacher—which was really no case at all; but the man had sinned, and was convinced that he had it whether or no. Not long since, a gentleman anxious to be married, came to me from a long distance simply to get my certificate that he had no disease, as his rival had reported to the lady's family that he had, and the marriage could not come off until that was fixed. He had no disease at all, and I gave him a certificate to that effect. As regards the alkaline treatment, I have used the liquor potassæ for a long time, and found benefit from it. The disease extends itself in the urethral canal, and on other mucous membranes, simply by means of contiguity of tissue.

Dr. KENNARD asked if Dr. Pope did not think gleet was often confounded with what Professor Gross denominates prostaticorrhœa, a discharge from the prostate gland.

Dr. POPE had no doubt it frequently was. It may be caused by the disease of the prostate, by stricture, and by continued irri-

tation of the membranous portions of the urethra. We must not leave off our remedies as soon as the discharge stops ; for if we do not continue them for a while, it is apt to return.

Dr. McPHEETERS. In the pathology of gleet, the location of the disease has ordinarily been confined to the membranous portion of the urethra. This view is entertained by most surgeons. Recently I noticed in one of the foreign journals, that a writer opposes the generally received idea, and says it is really a disease of the glans penis, and acting upon this belief he introduces elastic bougies, smeared with mercurial ointment, into the glans, and then by pressing it as he withdraws the bougie, leaves the ointment in the urethra. He reports a large number of cases successfully treated in this way. With regard to the treatment of gonorrhœa, I prefer rest, dieting, diluent drinks, and weak injections. The acetate of potash, it is well known, is one of our most reliable diuretics, and may do more good by increasing the quantity and thus diluting the urine, than by any peculiar benefit it has in correcting the acidity of the urine.

Dr. M. A. Pallen related a case of
POISONING BY ATROPINE—ITS RECOVERY—WITH SOME REMARKS ON
THE DELETERIOUS EFFECTS OF BELLADONNA.

Some two months since I had occasion to prescribe as a collyrium, an instillation of a solution of the Neutral Sulphate of Atropine, *three grains to the ounce of water*, for an old gentleman, aged 64, who was suffering from ulceration of the cornea and chronic iritis, the result of granular lids. As usual in such cases, a tonic plan of treatment was indicated, and in the course of time a solution of quinine ordered.

On Monday last, the patient in question, through mistake, took a teaspoonful of the collyrium instead of the solution of quinine. Feeling an unpleasant constriction of the throat in a few minutes afterwards, he went to the apothecary from whom he had obtained the medicine, and learning its nature, obtained an emetic of ipecac, which he took when he reached home, which was about an hour after the medicine was taken. Rapidly growing worse, medical assistance was sought, and Dr. M. M. Pallen, fortunately being near, immediately saw him.

Mustard and warm water was freely administered to him, through which profuse emesis was rapidly obtained. The symp-

toms, nevertheless, increased in violence, so that in a few minutes he became blind, the pupils being very much dilated. He complained very much of the constriction of the throat, with intense dryness and tingling of the fauces, and, in attempting to drink a glass of water, it was discovered that deglutition was impossible. He then became delirious, which continued for about three hours, when he slowly got better, and in about six hours more was pronounced out of danger. During the period of delirium the pulse was feeble, respiration difficult, great nausea and extremities cold. Stimulants were administered, sinapisms applied, and the surface of the body rapidly rubbed with coarse towels and salt. He has been quite feeble since, and the pupils are still dilated, but are slowly contracting to their normal size. The peculiarity of the case indicates the amount of belladonna which may be taken without producing death, for in this instance three-eighths of a grain of atropine was swallowed, and produced symptoms of an alarming nature, which, possibly, might have produced death, had he not received medical assistance so promptly. The usual dose of atropine when taken internally averages from $\frac{1}{100}$ to $\frac{1}{50}$ of a grain, for according to Bouchardat $\frac{1}{5}$ of a grain may produce all the deleterious symptoms above described. The recognized official doses of belladonna are 1 grain of the powder, $\frac{1}{2}$ grain of the non-clarified extract, 1 grain of the aqueous extract in pills, and $\frac{1}{2}$ grain in the alcoholic and ethereal tinctures. From these tables it would appear that the average increase in strength of atropine over belladonna is about 40, and that three-eighths of a grain of the former is equal to 15 grains of the latter in powder.

Belladonna is an indigenous plant, growing along the shady sides of old walls, and flourishes during the months of June, July and August; it bears a dark berry similar to the black cherry, although rather smaller, and for which young children might readily mistake it. It is very poisonous in all of its parts, and belongs to the genus monopetal dicotyledons known as the Solanea, and, according to Brandes, is composed of

Malate acid of atropine,	1.51
Gum,	8.33
Starch,	1.25
Resinous chlorophyl,	5.84
Ligneous matter,	13.7
Of salts, and an analogous matter to osmazone,	9.87

I do not propose to extend my remarks upon the therapeutical effects of belladonna, but to confine myself as briefly as possible to the physiological manifestations as indicated by an overdose. From the earliest times this plant has been recognized as a poison, for we find in the works of Pliny the following, "Hic niger est, hinc tu Romane, caveto;" and he goes on to elaborate the various virulence of the root, berry and leaves in the order mentioned. His observations have since been confirmed by Orfila and Panquy, who found more of the supermalate of atropine in the expressed juice of the roots than in any other part, and that two grains of the extract would produce the most sinister results. Before considering the poisonous effects of belladonna upon man, it might not be deemed amiss to notice some of its results upon animals. Thus, a rabbit, according to Trousseau, was fed upon belladonna leaves for more than a week without manifesting the slightest inconvenience, not even dilation of the pupils. Orfila caused a small dog to swallow thirty of the berries without producing any effect. Other dogs, however, rapidly died, with all the symptoms of narcotic poisoning, under the influence of the aqueous extract; in these cases great dilation of the pupils was observable. When injected in the veins or applied to the cellular tissue, the poisoning was very rapid and intense. When poisoned by means of stomachic absorption, this viscus presented no marked inflammatory symptoms, and in only one of four post mortem examinations was any appreciable lesion manifest, and in that one four small round ulcers were found. Flourens experimented largely upon birds with belladonna, and noticed that the tubercula quadrigemina were specially affected, that the cranium immediately above them was red from blood infiltration of the diploe, and that during life the birds were totally blind, being unaffected by the appearance of any object however brilliant.

With atropine, according to Reisinger, one grain administered to a dog produced some symptoms of slight narcotism and a slight dilation of the pupil, from which it recovered in about two hours; whilst with one grain of the extract of belladonna, the same symptoms were brought about in the same length of time and took about three hours to wear off. What is more singular still, that upon young rabbits, according to Reisinger, the same doses of atropine and hyosciamus produced not the slightest effect.

With regard to the human species, there seems not to be the same protective influence against the poisonous action of the drug. Thus Bulliard makes mention of fourteen children who poisoned themselves by eating of belladonna berries in the garden of the King of France in 1773, and Ganther de Claubry speaks of one hundred and fifty soldiers who were guilty of the same mistake, many of whom succumbed under the deleterious influence of the drug. A remarkable peculiarity in the action of belladonna is the fact of its special inclination to the automatic system of nerves; and stranger still, when absorbed by the stomach and dilation of the pupil is produced according to Eklers, there is some functional derangement of vision even to blindness; but when instilled in the eye, or inuncted peri-orbitally, no such functional interference takes place. Brandes, however states, to have observed from the vapor of atropine or its salts, dilation of the pupil, nausea, pains in the back and vertigo; and he himself experienced the same feelings from having tasted simply of a small quantity, which he found more salty than bitter. Among the numerous well attested cases of poisoning by belladonna but very few were fatal, and Gigault, a surgeon at Pont-Croix, department of Finistère, France, in a communication to the Academy of Medicine, states, that among many hundred such cases, in an extended practice of over than 30 years, he never had witnessed a death.

The usual symptoms attending a belladonna poisoning are nausea (not always followed by emesis), dryness of the mouth, constriction of the throat, headache, vertigo, fainting, lipothymia and extreme dilation of the pupils attended with functional derangement of vision, and generally complete blindness; also redness and tumefaction of the face, the conjunctiva injected and red, the stare fixed, sometimes dull, haggard and deadened, sometimes furious and maniacal. Hallucinations follow on, attended with slight delirium, which increases in intensity, generally of a gay character analogous to the condition produced by the inhalation of the protoxide of nitrogen (laughing gas), marked by the most grotesque of extravagances, gesticulations and immoderate laughter, or an irrepressible desire for loquaciousness. Aphonia sometimes ensues, as Claubry and Franck both enumerate cases of such. Rarely the delirium is of a sombre, or stupid, or comatose character; some of the soldiers above mentioned, however,

affected such, but the majority were foolish and frivolous in the extreme. Sarlandiere relates a case of complete somnambulism being induced in the case of a tailor, who stitched at airy and formless coats for more than twenty-four hours, and held imaginary conversations with suppositious nobodies. Boucher, Murray and others mention cases wherein the delirium was of the most fearful character, and terminated in partial and general convulsions, and tetanic rigidity. Munniks relates a case of well marked tetanus produced by the poison, accompanied with rigidity of the muscles of the jaws, face and neck, and winding up with opisthotonos. Sage relates a case wherein coma existed for thirty hours. Paralysis of the bladder is a frequent symptom, together with an involuntary desire to urinate and defecate. Sometimes, instead of the excrement and urine being voided, a discharge of blood ensued; the genitals are handled by the patient, who, if it be a female, sometimes manifests nymphomania, and, if a male, constant erection of the penis. The skin frequently presents a scarlatinous redness, and aphthous eruptions are found all over the buccal cavity. The pulse manifests various dispositions, sometimes feeble and frequent, then slow and weak, and again full and strong. The delirium is sometimes non-sanguineous, sometimes inflammatory, attended with hurried respiration, great heat of head, tumultuous action of the heart. Sometimes the respiration is stertorous and phrygioid. There may be great roughness of voice and complete hoarseness. Koestler of Vienna mentions several cases where there existed a croupy cough. Constipation of the bowels and meteorism are frequent.

In the few cases where post mortem examinations have been held, the paucity of the results is to be regretted. In a case reported by Faber there was nothing appreciable save a lividity of the tissue of the heart, an absence of fluid in the pericardium, and a few spots of a gangrenous character in the stomach. In a case reported by Zmelin, of a shepherd who died comatose, there was an engorgement of the vessels of the head, and the blood was in a fluid state, and flowed freely from the eyes and nose. From the above we are led to believe that belladonna has a special tendency to the brain and nervous system of a peculiar character, and operates in an apparently hyper-physical manner, in a direct ratio as to the development of nerve tissue.

In regard to the treatment of poisoning by belladonna the usual rules hold good, viz., emptying of the stomach and intestinal canal, counter-irritation, sinapisms, warm and cold baths alternately, bleeding if there be much exaggerated action of the heart and great heat of head with violent delirium, and stimulants if the condition of the system should so indicate. Coffee has been indicated, and it seems to me, reasoning synthetically, that opium and belladonna might be considered antidotes, as an over-dose of the former always produces contraction of the pupils, whereas the latter always produces great dilatation.

In a medico-legal point of view we have as yet not discovered any appreciable cause, so as positively to indicate poisoning by belladonna; although Runge of Berlin states that belladonna, henbane, and stramonium, are the only substances which, when applied to the eye of a cat, produce dilatation of the pupil. This peculiarity is manifest even when mixed with the aliment, the excrement, the urine, the bile, or the blood; and that, when dissolved in water and applied to a cat's conjunctiva, dilatation of the pupil will take place. Having arrived at this conclusion, we can only have reached a mere probability, and in giving testimony on such a subject great care should be taken lest in a too rapidly drawn conclusion we might consign a fellow mortal to a felon's doom, when perhaps he may be as innocent of crime as the purest of mortals.

ARTICLE VI.

For the St. Louis Medical and Surgical Journal.

COLUMBIA, ILLS., April 8th, 1861.

Dogmatic assertion, come from whom it may, is not proof!

In the March number of this journal, there appears an article on Epidemic Dysentery; on this subject I beg leave to offer a few remarks, and submit them to those who have as good "a right to speak" as MM. Trousseau or le nommé Pidoux.

The treatment of uncomplicated dysentery with neutral salts is by no means a new theory or practice. By uncomplicated dysentery, I mean such an inflammatory state of the large in-

testines as is caused by exposure to cold or other cause, that arrests the capillary circulation, prevent the elimination and excretion of effete matter through the skin or by the proper emunctories; quite a different thing from dysentery, complicated with malarial disease, requiring mercurials, anti-periodics—say, quinine, mineral acids, &c., for their cure.

“Opium,” says the author of the article alluded to, “is one of the sovereign resources of the *materia medica*,” (a fact, though intended as ridicule,) “and is perhaps the pharmaceutical substance with which *most* harm may be effected; it is in incessant use” (as it should be), “and is strangely abused” (as it should not be), “being (in M. Pidoux’s *happy phrase*!!) the knout of the therapist” (of the very scientific ones of course). “With it, (the knout, or the opium, or both?) every patient who complains or suffers is *fustigated*; in vain may you try the rational procedures consecrated by usage, and in vain do you appeal to your intelligence and your experience; all goes for nothing, pain is present, and the indication which dominates *all others* is to assuage such pain, for which opium must be prescribed.”

Now, we do try the rational procedures of Sydenham, instituted more than two hundred years ago, and consecrated by the usage of tens of thousands of learned practitioners. We do appeal, and *not* in vain, to what little of intelligence we have, and to thirty-eight years’ daily experience; and it goes for—something!! it shows that opium, used and “not abused,” is the sheet anchor in the early stage of dysentery!!

“A distribution of opiates (says the author) with easy compliance” (here our intelligence fails us) “is the mark of an impatient and ignorant practitioner; it is a very convenient procedure, and one to which every capacity is competent, which consists in drying up the intestinal canal by laudanum in a case of diarrhoea; and in roughly imposing silence upon the *symptom* pain in case of dysentery, accompanied with *horrible* tormina. I do not pretend to say that after having put into force the evacuant treatment, that we must *never*, when the patient is suffering cruelly, *temper* his pain by a few drops of laudanum; but I entirely object to the practitioner at once drying up the intestinal canal; for this is his aim in a case of diarrhoea, or dysentery;

let him not meddle with opium, except with the most cautious reserve," (lest he be "fustigated.")

We see but little analogy in diarrhoea and dysentery ;—the first is attended with very little organic lesion in its early stage, a superabundant discharge of faecal matter and the pain chiefly confined to the small intestines, or often not attendant at all ; in the latter, the organic lesion is the effect produced, or the disease itself from *cause* ; now, to remove this cause is really to cure, (it is the only way we ever cure anything ;) and how? I say, emphatically, with opium and Epsom salts.

As long ago as 1822, large doses of opium, followed by Epsom salts, was pointed out to me by a very learned and experienced man as the remedy for simple dysentery (we both attaching the same meaning to the term simple). His rationale was about this: large doses of opium remove spasm, soothingly moderate and control hypersthenic vascular action, promote secretion, (the reason is very plain,) and consequently eliminate the *materies morbi*; the Epsom salts evacuate the small intestines of their irritating contents, before retained there by the spasm and thickened coats of the bowel below, and also promote absorption. His dose for an adult was two or more grains of opium, followed in an hour by nearly an ounce of the neutral salts ; the latter to be repeated in smaller doses, every two or three hours, until good faecal evacuations are obtained ; these medicines were always followed by a free use of mucilaginous drinks, accompanied by a diaphoretic of Dover's powder.

I do not believe in specifics, except in specific cases, quinine in intermittents, &c.; but I must add, that I have witnessed several epidemics of dysentery—treated many hundreds of cases, and when the case was appropriate, I have always found my mentor's prescription equally appropriate. The gentleman also observed, "small doses of laudanum or opium do no good, but, on the contrary, may occasion much harm: the spasm and inflammatory condition of the lower bowel unrelieved, the salts will not operate, and you lose valuable time."

I would ask M. Trousseau, after having fully diagnosed his case of dysentery, why he wishes still to keep in view "the symptom pain?" Why, sir, pain kills people ; and if disease be an entity, pain is one of its accompanying urchins we wish to banish.

I used to think that ignorant practitioners left no "mark," and I now think that some learned ones leave marks not to be envied. The first named gentlemen, with all their learning, are surely ignorant of the value of opium and its correct application. S.

ARTICLE VII.

Cases of Monstrosity. By E. MONTGOMERY, M.D.

In the beginning of last summer, I was called upon to attend a lady in the northern part of the city; on arriving at the residence of the patient, I found her in labor with her first child, the uterus was well dilated and the membranes ruptured; head presentation, first position. In about an hour a large male child was born, with the most frightful physiognomy I had ever witnessed. The forehead was very low and narrow; the eyes very small and deep set; the nose a tremendous "pug" with very wide nostrils; the mouth was so hideous and unseemly as to baffle description; the upper lip was entirely wanting, and there seemed to be no gum or alveolar arch, but one palatine bone, extending towards the uvula in a slightly inclined plane; the tongue was very long and large and protruding from the right side of the mouth, and the lower lip everted so as to cover, almost entirely, the narrow chin. The low, narrow, sloping forehead, the angular face with its oval malformation, made the child look more like the offspring of an Australian aboriginal than the issue of Anglo-Saxon parents. The scrotum and testes were unduly developed, and the penis lay in a furrow formed between two folds of the scrotal integuments; the glans, corpora cavernosa, and corpora spongiosa were well developed, but without a particle of prepuce or foreskin. The other members were all normal and well formed.

When I made my visit the following day, I found the child dead; the mother informed me that it could not suck, or even swallow anything from a spoon; that soon after I had left the preceding day, it began to have very noisy and laborious breathing, became livid, and died some fifteen hours after birth. She also informed me that when she was in her fifth month of gesta-

tion she had visited one of our suburban beer gardens, and in walking through the grounds she came suddenly and unexpectedly into close contact with a pet bear, which was chained to a large tree; this startling appearance of Bruin frightened her very much, and she had to keep her bed for two days, being threatened with abortion.

On Sunday morning, the 24th of February last, I was hastily summoned to a case of *accouchement*; the messenger informed me that the patient was his wife, that she had been violently ill for the last ten hours under the care of a *sage femme*, and, although the pains were strong and severe, there were no signs of a happy denouement. On my arrival, I found the lady in great agony, very impatient, and the midwife much alarmed. The latter told me, *confidentially*, that the child's elbows were presenting! and, on making an examination, I confess I did not know exactly how it was, as I could only feel two bony protuberances, with a soft gelatinous space between, and the pains were so powerfully expulsive that I could not extend my examination further in that direction. The patient told me this was her fourth pregnancy, and that in her three previous confinements, she had easy, speedy, and natural deliveries. I again introduced my hand, and a strong expulsive pain coming on, the membranes were ruptured, and a large acephalus monster female child was expelled. It was alive, and the large bright eyes glaring open, *apparently* on the top of its head, gave it a frightful appearance; but in a few moments those eyes became dim, the skin grew dark, and it was dead. Marshall Hall's "Ready Method," the hot and cold douche, &c., was of no use, for there was no brain, and no breath; the cerebrum and cerebellum were both wanting, and the medulla oblongata was quite rudimentary, if not entirely absent. There was no skull, but a small portion of each temporal bone with the two mastoid processes very large and prominent: these were the presenting parts which puzzled me, and which were the cause of the midwife's belief that the case was a most extraordinary one—no less than an "elbow presentation!" A narrow strip of skin extended along above the nose and eyes, and a slightly concave space from this frontal margin to the atlas posteriorly, and from the mastoids latterly, contained nothing but a little gelatinous substance, resembling half coagulated bloody serum. Just below

the atlas, a hollow space (as if the spinous process and part of the body of the vertebra had been scooped out) was filled with the same gelatinous matter; two little round holes penetrated the face, about an inch apart, between which was a broad but very slightly elevated prominence, constituting the nasal appendage; the mouth was small and round, and the chin and cheeks seemed continuous with the muscles and integuments of the chest;—not the least appearance of neck—no line or furrow to denote where the facial surface ended, or the pectoral began. The body and extremities of the child were large and well formed, only that it was provided with a supernumerary finger to each hand. I have in one or two instances witnessed this peculiarity, but generally the redundant finger would be small, undeveloped, or sticking like a spur to the ulnar margin of the hand; but in this case there were five fingers and a thumb to each hand, all well formed, of good size, and in natural positions. My not being allowed to make any dissection or post-mortem examination, will account for the incomplete and superficial description which is here submitted: I regret this very much, but regret still more, that by no persuasion, or offer of any kind, could I induce the parents in either case to give me these specimens of abnormal developments for presentation to your museum.

The mother of the acephalus child told me that she could think of no circumstance or casualty occurring to her during her pregnancy which could probably influence the growth of the foetus, unless it could be great mental depression, heartfelt grief, and much tribulation from the loss of dear friends and relatives, worldly goods, &c.

In most cases where these deformities are seen in infants of healthy and temperate (I mean temperate in all things) parents, I am inclined to attribute them to some strong and sudden mental emotion or nervous shock inflicted on the mother; but these speculations I will leave to medical philosophers and physiologists to elaborate.

ARTICLE VIII.

Case of Imperforate Anus, reported by W. P. Beall, M.D., of Coffeeville, Texas.

Messrs. Editors: About the first of March, 1861, I was called to see a child, born a few hours previously, and was informed before my arrival, that the child had no anus. I found it a large boy, though it seemed quite indisposed, as it moaned and complained a good deal. It proved to be a perfect case of imperforate anus. The place where the anus ought to be was firm, and no appearance or indication of the bowel could be felt. The perineal seam or raphe continued nearly to the os coccygis. A small quantity of a dark colored matter occasionally passed per urethra. With but a faint hope of saving the child, I deemed it my duty to advise an operation, which I did on the same evening. After placing it on its back, as for the operation of lithotomy, I took a sharp bistoury and carefully cut to the depth of two and a quarter inches, when the meconium came away in considerable quantity. Before reaching that depth, however, I occasionally stopped to examine the condition of the parts being cut through. In a few minutes I discovered some blood passing through the urethra, which induced me to believe that there was a communication between the bowel and bladder, or urethra. The incision was about three-fourths of an inch externally, and I kept a tent in the wound to prevent its adhesion. The meconium continued to pass for three days, (as well as the fecal matter, it having received nourishment frequently during its life,) at the expiration of which time it died.

A post mortem examination revealed the communication between the rectum and the prostatic portion of the urethra, which accounted for the passage of meconium and blood through the urethra. No other deformity existed in the case. The lower bowel and bladder, as well as the contiguous parts, exhibited signs of considerable inflammation.

I record this case, not on account of the success, or the excellency of the operation, but on account of the rarity of the case. I believe there are but few, *very few*, well authenticated cases of *perfect recovery* after the operation, especially when the distance

to be cut is so great, or where a fistulous opening to the bladder or urethra exists. Had it not been for the opening, I think the child might have lived.

PART II.

REVIEWS AND BIBLIOGRAPHS.

ARTICLE I.

A Practical Treatise on the Ætiology, Pathology, and Treatment of the Congenital Malformations of the Rectum and Anus. By WILLIAM BODENHAMER, M.D. *Illustrated by sixteen plates, and exemplified by COLXXXVII cases.* New York: Samuel S. & Wm. Wood.

Until the appearance of this work all that has been written upon the congenital malformations of the rectum and anus has been inaccessible to the profession at large, except the slight notices in some of the systematic works on surgery. Most of the literature upon the subject has been scattered through the medical journals or published in reports to societies, which were read more for curiosity than information. To place before the profession all knowledge of value concerning the subject, and to correct the erroneous opinion entertained by many, that an imperforate anus is a *lusus naturæ*, unworthy of study and beyond remedy, the author has collected together and classified two hundred and eighty seven cases, as reported by various authors, and arranged them under nine different species according to the various shades of difference, and given the anatomy and pathology of each, together with the medical and surgical treatment, as suggested and improved upon, from the earliest times to the present day, with numerous lithographic illustrations, elucidating the same. Nothing definite has been, or probably ever will be, determined as to the cause of these malformations; but the most natural supposition is, that mental influence or actual disease of the foetus in utero produces them. They present a great variety

of forms, from the most simple and amenable to treatment to the most complex and unmanageable.

The anus may be malformed by preternatural narrowing; by occlusion by a thin membrane; by occlusion by a thick hard membrane; by partial or complete absence, and by abnormal anus. The congenital malformations of the rectum may be by occlusion of the rectum; by obliteration of the rectum; by preternatural termination of the rectum; by preternatural termination of other organs in the rectum; or by absence of the rectum, either partial or complete, as indicated by the author in his synopsis. All of these varieties have been taken up seriatim, discussed and exemplified by cases.

In the last chapter, we have an account of artificial anus, giving the various methods of performing the same. The author prefers making the perinæal opening whenever practicable, and says, the operation for artificial abdominal anus ought by no means to be resorted to until the surgeon has failed to find the end of the rectum through the perinæum; for the abdominal anus is but a poor substitute for the perinæal artificial one. Other authors, as Tüngel and Amussat, recommend the opening through the abdomen when there is any uncertainty about the location of the rectum, and Tüngel thinks it the most rational operation for all cases of imperforate anus. Many of our ablest surgeons denounce the operation for congenital deformity of these parts as altogether unwarrantable, and think it inhuman to resort to an operation so dangerous, and even if successful, leaving the child an object of disgust and loathing, both to itself and its parents; and although my feelings would make me hesitate in a case in which I was personally interested, I fully agree with the author, that it is the province of the parents, properly advised by the surgeon, to determine whether the operation be performed or not. Our duty surely is to relieve suffering and prolong life as far as practicable without regard to personal feeling. After giving the various modes of operating, the author expresses his preference for the method of M. Littré, in all cases of children, as the most simple and easy of execution; and although the peritoneum is opened, the danger of inflammation is not so great, nor can it be avoided by the modified operation of Callisen, where the peritoneum is not cut. Littré's operation makes the opening

in the left iliac region, which the author thinks the most convenient and favorable when the perinæum will not answer.

It is only by dividing the labors of the profession that we can do much towards its advancement, and the author deserves much credit for the thorough investigation and elucidation of a subject hitherto so little studied and presenting so much of the disagreeable to the fastidious among us. Whether his book be generally read or not, he will have the satisfaction of producing the first complete work upon the subject, and connecting his name for all time to come with those who have not deemed it an unworthy task to relieve the little sufferers from the most distressing trouble which they are apt to fall heir to.

K.

ARTICLE II.

An Elementary Treatise on Human Anatomy. By JOSEPH LEIDY, M.D., *Professor of Anatomy in the University of Pennsylvania; Curator of the Academy of Natural Sciences; Member of the American Philosophical Society, and of the College of Physicians of Philadelphia, &c., &c. With three hundred and ninety-two Illustrations.* Philadelphia; J. B. Lippincott & Co. 1861.

This new and elegant work by the distinguished American Anatomist, Professor Leidy of Philadelphia, comes as near being an original treatise on this fundamental branch of medical science as any which has issued from the press for many a long day. It is admirably adapted as a text book for students, for which it was mainly designed by the author. Its appearance is unusually attractive. The paper on which it is printed and the typography are very superior, while the illustrations, which are numerous, are many of them new, and all of them elegantly executed. The descriptions are short and perspicuous, and with the aid of the engravings, which are to be found on almost every page, can readily be comprehended even by beginners. Another advantage is, that it is far less voluminous than most other modern works on anatomy, whilst at the same time it is sufficiently full for an elementary treatise.

It has been the object of the author to simplify as much as possible the ponderous nomenclature of anatomy, by rejecting the numerous names, indiscriminately applied by different authors to the same part, and, in lieu thereof, selecting uniformly the same name, and always the simplest and most expressive for each part. And when admissible, he tells us, that the names have been anglicised, and a copious list of synonyms added in foot notes.

So far as the anglicising of the anatomical names is concerned, we are not prepared to say that it is an improvement; on the contrary, we believe that it is not, since the Latin and Greek terms (objectionable though many of them may be) are almost a part and parcel of anatomy, and as such are engrafted into the very mind of the profession.

Altogether, Dr. Leidy's work is one of the best, perhaps the very best, text book on anatomy in the English language, and we therefore recommend it especially to students.

ARTICLE III.

A Treatise on Human Physiology: Designed for the use of Students and Practitioners of Medicine. JOHN C. DALTON, Jr., M.D., *Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons of New York; Member of the New York Academy of Medicine; of the New York Pathological Society, &c., &c.* *Second Edition revised and enlarged, with two hundred and seventy-one Illustrations.* Philadelphia: Blanchard & Lea, pp. 690. 1861.

Two years only have elapsed since the first edition of Dr. Dalton's work was offered to the profession. At that time the author was unknown to fame, but, in common with other medical periodicals throughout the country, we gave it a hearty welcome, accompanied by a deservedly favorable notice. Since then, however, the work has received the almost unqualified approbation of the profession not only of this country, but also of Europe, and the author has been admitted to the rank of one of the first physiologists of the age.

Such being the recent history and well known character of the work; all that is necessary at our hands at present is, simply to announce that a new revised and enlarged edition has been issued from the press of the well known Philadelphia publishing house of Blanchard & Lea.

In the present edition, the author has endeavored to supply the deficiencies of the first, and has added a great deal of new matter, with some new and original illustrations from which the reader will be enabled fully to comprehend the actual condition of physiological science at the present time.

It is unnecessary to give a detail of the additions; suffice it to say, that they are numerous and important, and such as will render the work still more valuable and acceptable to the profession as a learned and original treatise on this all-important branch of medicine. All that was said in commendation of the getting up of the first edition, and the superior style of the illustrations, apply with equal force to this. No better work on physiology can be placed in the hand of the student. To be had at Keith & Woods, 5th st, St. Louis.

Diphtheria.—Upon this subject, but little that is new or interesting is elicited. Dr. Prince says that the local application of the nitrate of silver has not met his expectations. "A weak infusion of capsicum and a saturated solution of chlorate of potash, singly or in combination, have proved more satisfactory." Dr. Goodbrake says, "As a local application to the fauces and tonsils, we found the mur. tr. iron to answer the best purpose in all cases that came under our treatment. We tried the nitrate of silver, sulph. of copper, alum and sulph. of copper combined; but the tinct. of iron seemed to have the best effect in our hands.

The best remedies internally seemed to be quinine, tinct. of iron, chlorate of potassa, and good porter or brandy, with good nutritive diet." No allusion is made to a saturated solution of common salt, as a wash or gargle to the throat; this, of all means, has pleased us the best. We have applied this remedy to the throat for another trouble, which we may as well mention here as elsewhere. A lady of our acquaintance had, for many years, been subject to frequent attacks of quinsy, which always passed on to suppuration. In the last year, we have aborted two severe attacks by the local application of muriated tincture of iron, applied several times a day. We have reduced the remedy with about two parts of water to one of tincture.

THE CLASSIFICATION, DIAGNOSIS AND PROGNOSIS OF TUMORS, FROM
A CHIRURGICO-CLINICAL POINT OF VIEW. BRIEFLY ARRANGED
BY DR. THEOD. BILLROTH. (*Deutsche Klinik*, 1859.)

Translated by G. Baumgarten, M.D.

The division of tumors into those which do not recur after extirpation, and those which recur and afterwards invade the general system, is, in this form, totally impracticable and untenable, because it is contrary to observation. If we regard the faculty of recurring as an expression of the importance to the organism which the process producing a tumor possesses, and physicians cling with tenacity to this principle of division, it must be conceded that the above dualism does not exist *in natura*, but that the categories, to correspond to observation, should be more numerous. When Walther, *e. g.*, divided into scirrhus, carcinoma, and encephaloid, all that we are now accustomed to name carcinoma in the aggregate, he had certainly observed more accurately at the bedside than is usually done in later days. Formerly, only experienced surgeons wrote on such matters,—now every young microscopist, who has examined a few bits of tumor, feels justified in talking on the most difficult questions in the doctrine of tumors; the whole subject has been yielded too much to the histologists, and surgeons have retired,—partly, because they allowed themselves to be blinded by the powerful light the new intruders diffused around them. When I repeated in one of my first larger publications, (*Untersuch. ueber die Entwicklung der Blutgefäße*—Investigations on the development of blood-vessels—1856,) the words of J. Mueller, “the microscopical and chemical analysis (of tumors) shall therefore never become the means of clinical diagnosis; it would be ridiculous to wish, or to suppose this possible”—I was repeatedly censured, publicly and privately, and reproached as mistaking the importance of pathological histology. I had appended to J. Mueller’s sentence the following remark: “It is my endeavor not only to gain for pathological histology an independent position and a purely anatomical ground, but also to re-install surgery, in regard to the diagnosis of tumors, in its full rights, which it had for a time but too willingly given up.” Self-quotations, it is true, have

lately come into great discredit, and I would not, though without fearing criticism, have repeated here my own words, if they did not in some respect represent the programme of my labors in this field. Until now I have published almost exclusively my histological observations, which necessarily extended partly also to normal histology, since most of the general questions cannot be understood and worked out without comparing with pathological forms the normal types. That I do not disrespect pathological histology, as such, must indeed be credited, for else I would certainly not have engaged in it so long; even now I am constantly laboring, as far as is in my power, with new sources and new material, to investigate still further the most detailed views of the structure of pathological new-formations. But however worth knowing the results may be, because the exact cognition of a thing has always in itself a certain value and is productive of gratification to the investigator, they would, nevertheless, be beyond the interests of physicians, almost as much as histology is beyond physiology. Just as the latter sciences are reunited only by the experimental method, so also pathological histology and clinical surgery only meet again in the observations at the bedside. If this parallel was quite correct, we would be in unison with most observers, for all concede that the classification of pseudoplasms must not be left entirely to the histologist, but that the latter must judge new-formations only with the aid of clinical observation, although with the histological structure for a basis; but it is impossible to carry this through, since the above parallel is only partially proper. While for normal histology we can with some degree of consistency maintain the proposition, that *like structure occasions like function*,—that, *e. g.*, we assume as certain the power of contracting wherever we find muscular elements,—the same is not at all applicable to pathological tissues: *tumors, consisting of entirely similar tissues, often have a very different clinical significance.* This result of experience, which is becoming more and more valid, and which it was necessary, at last, to acknowledge, since the decisive position taken by some pseudo-plasmatologists has led us now into this and now into that error,—makes the direct application of histological investigations to the clinical bearings of tumors perfectly unsafe, even if those investigations had ever so much experience for their

basis; and this becomes still more remarkable and evident, when we consider that the examination of the intimate structure of some forms of tumors, especially the soft, depends altogether on the skill and experience of the individual. I will allude only to the fact, that by aid of the new methods of examination, of hardening tissues, etc., we can now gain in many tumors a precise insight into the disposition of the elements that formerly seemed only a chaos of cells, nuclei and molecules.

Shall the physician in his diagnosis be dependent on such histological subtleties? I answer emphatically, no.

But even if we suppose that all difficulties of investigation would gradually be overcome, and histological information had progressed so far that every physician could form a complete anatomical diagnosis of tumors,—the fact, known by experience, that tumors with like forms of tissue can have a totally different clinical significance, would, nevertheless, make the availability of the most arduous investigations very doubtful. Without recurring to the embryon state of histology, which is still found in the modern views of the French, I will only mention that, after the specific cell-form was done away with, the areolar arrangement, for instance, was advanced as the characteristic of carcinoma, so that consequently the enchondromata, which show this very areolar arrangement in the most exquisite manner, were to be counted among cancers,—which was right and was wrong, according to the individual cases. So also the ossifying tumors are of very various clinical importance according to their combinations and their seat, although they all contain osseous tissue. Of similar examples many more might be quoted.

The most various ways have been followed to avoid these contradictions. Some believed, that the mode of development was the chief consideration; this also has proved a fallacy: more recent investigations have shown that the originating points of development of new-formations are nearly always the same, namely, the cells of the connective tissue. Then, they embraced the mode in which the new tissues were inserted into the old; this furnished so far about the best foothold, but could likewise not be carried through consistently. While, in general, carcinomata are intimately connected with the mother-tissues, there are also some that are very accurately limited by a capsule (*abgekapselt*), e. g.,

the majority of medullary cancers. Still others abandoned more or less the idea of a thorough general classification, and contemplated every histologically defined form of tumor in regard to its occurrence in different organs and to the clinical experience we have on it. This plan I have hitherto pursued in my lectures; but in the course of time it seemed to me too cumbersome, too complicated, so that I shall abandon it. One may thus, it is true, in advancing the histological principle of classification, also do justice to clinical observation; but this will always come in only second rate, and there lies the mistake. *The histological consideration must combine with the clinical, but the latter must be the leading principle.* Finally, the newest expedient should be mentioned, which Virchow has rather indicated than elaborated, namely, to bring into another form the old distinction of homology and heterology of tissues,—Virchow wishing heterology to be understood as signifying, not, as formerly, the difference of the new-formed tissue from other normal tissues at large, but the difference of the new from the mother-tissue, in which it arose. I confess that I do not perceive the advantage of such a distinction, either in a histological or in a clinical sense; for since all neoplasms arise from connective tissue, all that are not connective-tissue-tumors would have to be classed as heterologous formations. But even without thus drawing the conclusion strictly in accordance with histology, the said distinction would not be satisfactory in itself. Virchow has, however, pointed out a new course in another direction in saying, that the malignity of tumors is a various one, and a certain scale must be adopted for it. This leads to the very point which I intend principally to carry out in the following lines, and for which I could only after prolonged clinical observations adduce complete evidence, namely, that the fault, in respect to the manifold difficulties in the classification, rests not with the histologists, but with the surgeons,—that the clinical division of tumors into benign and malign is incorrect and due to inaccurate observation, as has been already mentioned above. The system of surgery must therefore make certain concessions in this direction, and conform more to accurate observation, on which the anatomical tendency of this age, as a strictly observing school, has, it is true, exerted the most decided influence, that should not be underrated.

When I venture to advance a sort of new classification of pseudoplasms, which shall correspond as far as possible to practical interests, I do so, because I believe I am in possession of a sufficiently ample fund of observations on tumors, at least as far as surgery is concerned, and because I always strove to turn this material to advantage in all directions. The prognostic principle of classification, which hitherto was familiar to physicians—the faculty of recurrence in variable degree and extent—I regard as perfectly competent for practical purposes, and therefore retain it in the main. In the designation of the various forms of tumors I have likewise altered nothing and retained the usual names, but eliminated those names, which were chosen according to microscopical elements; they may be reserved to histologists for the more minute distinctions. The consistency and the similarity to normal forms have occasioned the most current names, and it would be a vain endeavor to substitute other denominations for them; the majority have been chosen very pertinently by our forefathers. On the whole, I pay especial regard in this classification to the requirements of the educated physician. The delineations of the characteristic marks of the various forms of tumors are therefore but short, and look principally towards the prognosis; *they all have reference to cases which I have observed myself*, so that I am able to bear out every remark that may appear new, with examples. For the histologist only here and there a few points could be thrown in. Whoever has examined many tumors, will agree with me, that, *in most cases*, one can predict from the mere accurate inspection of the tumor with the naked eye, how it is constituted microscopically; but there are in this respect many exceptions that may deceive the most expert, since the multiplicity of minutest forms is especially astonishing in tumors.

I. TUMORS WHICH BUT SELDOM RETURN AFTER EXTIRPATION, BUT SOMETIMES OCCUR DISTRIBUTED IN GREAT NUMBERS OVER THE WHOLE SURFACE OF THE BODY.

1. *Simple Cysts*.—We distinguish most advantageously after the old mode four species of them, namely, according to their contents: (a) *Cysts with serous fluid*. They are rare, usually occur single, and do not return after the extirpation of the sack;

they arise on the spermatic cord, on the neck, especially close by the thyroid, seldom in the ovary, in the broad ligaments of the uterus, and are usually curable by injection of iodine, if this can be made.

(b) *Cysts with mucous contents, (colloid cysts,) of wine or honey-like, yellowish or brownish color, (Meliceris).* These mucous contents are not always purely a secretion of the walls, but often constitute a very soft tissue, (*mucous tissue, Schleimgewebe,*) the consistence of which can condense to that of a jelly. These cysts are found on the neck, under the tongue (as ranula), in the thyroid gland, in the ovary, seldom in the mammary gland; they frequently occur in great numbers in one organ, *e. g.*, in the ovary and thyroid gland. The injection of tinct. of iodine is with these an unreliable remedy; sometimes it is efficacious when repeated, but it may also lead to violent inflammation and ulceration if the soft remnants of tissue are suffered partially to remain. By extirpation of the sack with the diseased organ these tumors are curable; they do not invade other parts of the body.

(c) *Cysts with pullaceous, fatty contents.* The latter vary greatly in regard to color and consistence; they may be grit-like, semifluid, with many glistening cholesterine tablets, (*Atheroma, Grit-follicle—Gruetzbeutel*); occurring often in great numbers especially on the head, sometimes undoubtedly in connection with general lesions of secretion in the sebaceous glands; in other cases, the contents are yellowish-white, firm, consisting of concentric laminæ, (*lamellated cholesteatoma, pearly tumor,*) also occurring on the scalp, and likewise on the *basis cranii*; finally, the contents may be snow-white, fluid like beaten cream, sometimes emulsion-like, similar to pus; such cysts occur principally in bones, (especially the frontal and temporal,) but also in the ovary, on the neck, and here not unfrequently arising from the sheaths of vessels. Their walls sometimes present on their internal surface a cutis-like construction; a *rete Malpighii*, hairs, sebaceous and sudoriferous glands, (*dermoid cysts*;) in the ovary there may be found in them, besides, pieces of bone, teeth, and the like. These cysts are seldom curable by injections of iodine; I am, so far, acquainted with only one case on the neck, where the fluid was puriform, and proved to be a fatty emulsion with

epidermic plates and cholesterine, in which a cure was effected by two injections of iodine; rapidly and with certainty this end is attained only by extirpating the sacks, provided that this can be done without danger to life.

(d) *Cysts with blood* are very rare; they are liable to occur on the most various parts of the body, (neck, axilla, chest, thigh;) their origin is unknown. Extravasations, of course, are here not included.

2. *Fatty tumors, (Lipomata.)*—They are frequent, occur almost exclusively in the subcutaneous cellular tissue, but may also originate in the fasciæ. They may be divided in two ways: first may be distinguished the *circumscript* and the *diffuse* form. That form, which is *definitely limited against the surrounding parts by a sort of connective tissue capsule*, is frequent on the neck, back, abdominal walls, and these tumors attain an enormous size; sometimes they ulcerate superficially; their construction is usually lobular; calcifications and even partially true ossifications may take place in them, and then the adipose tissue of some lobes is transformed into an emulsive or purely oily fluid; this is however a rare metamorphosis; commonly they remain, consisting uniformly throughout of adipose tissue; the latter varies in color and consistence, inasmuch as lipomata may look white as lard, but in most cases appear yellow, soft and lobular, like the common fat of man. When these tumors are carefully extirpated they do not return. But hundreds of them may form on the body simultaneously.

The *diffuse* form of lipomata is much less frequent; it proceeds from a hyperplasy* of the subcutaneous cellular tissue, and occurs congenital on the extremities and in the face, but may also be developed at a later period; the superfluous tissue can here be removed only by elliptical excisions, and the disease cannot always be remedied entirely by the operation; sometimes, however, the formation of fat will come to a stand-still after some of it has been removed. The *Lipoma arborescens* of J. Mueller occurs in joints and in the sheaths of tendons; it is an exuberant production of fat in the synovial villi (analogous to the *appendices epiploicæ*), and seldom has the import of a pseudo-

* Increased development, multiplication of the elements, formerly comprised under the general name of hypertrophy.—Tx.

plastic process; no case has yet occurred to me that was of any surgical importance.

The lipomata are also subdivided in another direction, namely, into *simple* and *compound*; the latter are combinations of adipose tissue with others. Among them is especially to be mentioned the combination with firm fibrous masses, the *fibrous lipoma*; it is rare, occurs in young individuals, proceeding from fasciæ (dorsal fascia, inguinal ring, hand), and is usually a tumor that extends by many branches and lobes between muscles and tendons, is difficult to extirpate entirely, and therefore liable to return. In the other combinations of the lipoma (with soft connective tissue, mucous tissue, medullary mass, cavernous angiectasia), the adipose tissue exists always in less quantity than the other resp. tissue, and the latter determines the importance of these combined tumors.

3. *Fibrous tumors*.—Of these, two different kinds must be distinguished :

(a) *The soft fibrous tumor (connective-tissue-tumor)*; it is purely white, tough as thick cutis, and occurs also congenital as hypertrophy of the skin, either as a thick protuberance (*e. g.*, on the cheeks, lips), or as a pedunculated tumor, (*Molluscum simplex, Dermatolysis, Cutis pendula*,) sometimes expanded in great masses over the whole body, and in the face, mostly on one side only, as vegetations resembling the comb of a cock; it combines with brownish coloration of the skin, excessive development of hair, and with capillary ectasis and the production of fat. If these tumors are developed at a later period, they appear more especially on the labia pudendi as pedunculated, lobate tumors, mostly a long time concealed, and hence very large (sometimes termed Elephantiasis); they do not return after extirpation.

(b) *The hard fibrous tumors, fibroid tumors, desmoid tumors*, are, as is notorious, most frequent in the uterus; their structure is in general well known, although it is by no means very clear, whereon is based the peculiar arrangement of the fibres, so very conspicuous on the surface of a cut, and the variegated gloss. The connective tissue, here firmly interwoven, is of a peculiarly rigid, brittle texture. Considering, first, the fibroid tumors of the uterus, we find in them ordinarily a large amount of organic muscular fibres, sometimes extensive calcification,

rarely ossification of the tissue. The form in which these tumors appear, is either round, knotty, for the most part accurately limited; and in these cases the fibroid growths become more or less pedunculated, projecting into the abdominal cavity or into the vagina, according as they are developed in the fundus or in the cervix; or they are less circumscribed, more interstitial, partly protruding out of the os; the latter form is rare, sometimes consists of organic muscular fibres, and is separable into bundles in different directions. Considering the difficulty of removing radically these fibrous tumors of the uterus capable of operation, it is not astonishing that local relapses occur.

On fasciæ, and on the periosteum also, pure fibroid tumors are not unfrequent; they are remarkable for their enormously firm adherence to the surrounding soft parts, not seldom send a number of knotted branches into the neighboring parts, and are therefore sometimes exceedingly difficult to extirpate. The periosteum of the tibia is a favorite seat of these tumors, and here they are not unfrequently painful; from the periosteum of the clavicle, also, I saw two fibroid tumors extirpated; in these localities they often partially ossify. The fasciæ of the thigh, abdominal walls and back, sometimes produce fibroids too. This form of fibrous tumor may further appear as fibrous nasal or naso-pharyngeal polypi; in bones it is rare. I saw it only in the upper maxilla,—still rarer in glands, *e. g.*, in the mamma; but more frequent again on nerve trunks as neuromata.

Fibroid tumors destroy bones by pressure, when they are near them, and thus become dangerous, *e. g.*, when, as fibrous polypi of the pharynx, they grow upwards and perforate the *basis cranii*. The principal danger of these tumors lies in hemorrhages; a tendency to superficial ulceration with the firmly attached skin is peculiar to them; from these apparently trifling wounds arterial hemorrhages of such violence may take place as to leave the patient almost anæmic; this is equally true of fibrous polypi of the uterus, nasal polypi, fibroid tumors of the fasciæ and of the periosteum. The tumors are extraordinarily destitute of capillary blood-vessels, but contain quite a number of small arteries; these have no distinct external tunic, the latter being merged in the fibroid tissue; when, therefore, a small artery is corroded, the rigid orifice remains open, because the vessel cannot retract;

in this manner I would explain the paradox, that the tumors most devoid of blood can bleed most profusely.

No well authenticated case is known to me of pure fibroid tumors returning after radical operation, and extending over the body in general. The cases of Paget I cannot recognize as pure fibroid tumors; they are combinations with sarcoma; for fibroid tumors can combine with different forms of sarcoma and then assume a totally different character. I observed a fibroid tumor of the upper jaw, which was combined with mucous tissue and returned three times after extirpation; in other cases, combinations with various other forms of sarcomatous tissue occur, and in accordance with the character of the latter must the prognosis be determined. In many fibrous tumors, (in those of the uterus also,) small fissure-like cysts are found, which, however, are without practical importance, and in regard to which histological researches are wanting. Not unfrequent seems to be the combination of the cavernous hæmatoma with the fibroid tumor; I am acquainted with examples of uterine and pharyngeal polypi that presented this combination.

4. *Pure cartilaginous tumors, Enchondromata*, are situated most frequently on the phalanges of the hand and on the metacarpal bones, seldom in the bones of the face; they grow very slowly, without pain, and, cause, on account of their firm consistence, seemingly no lesion of continuity in these small bones and therefore come to the notice of surgeons usually but very late in persons of middle age, although they originate in youth; nearly always there are several tumors at the same time, and ordinarily these originate in the periphery of the diaphysis of bones. I have never observed that an enchondroma expanded the cortical substance of long bones, like a bladder, although isolated patches of enchondroma may arise in the very centre of the medullary substance; these tumors, on the contrary, usually grow completely through the bone. If they become very large, they may ossify more or less; but the bone-substance thus formed is a very irregular one, partly rather a calcification of cartilage, and has a strong tendency to necrose, especially if the tumor begins to ulcerate from without inwards. In men, the production of enchondromata appears to be more frequent than in women. Although these tumors occur on one or both hands at the same time,

in large numbers, yet after the exarticulation of the affected fingers local relapses do not take place; but in recent times a more general development of enchondromata, especially in the lungs, has indeed been repeatedly observed.

Enchondromata may also present themselves in the form of cystoid and colloid tumors, and then have an entirely different clinical character, whereof more shall be said in the second group. (See below.) Sometimes, too, the formation of cartilage combines in the salivary glands with glandular tumors, and in the testicles not seldom with medullary forms; the latter, however, then determine the surgical importance.

5. *Exostoses* occur only on bones, and are distinguished from osteophytes and callus, just as tumors in general are distinguished from chronic indurations and cicatrices. Osteophytes are produced in consequence of chronic periostitis, and are to a certain degree capable of resorption; the callus of fractures, particularly, can in the course of time considerably diminish (which can be observed especially well in fractures of the clavicle in children).

Exostoses are usually pretty circumscribed osseous tumors, and are never resorbed. There are two species of them:

(a) *The spongy exostosis, lined with cartilage—exostosis cartilaginea, ecchondrosis*—is developed only at the juncture of epiphyses and diaphyses in individuals under twenty-four years, *i. e.*, at the time when the diaphyses are still separated from the epiphyses by a band of cartilage; the latter probably grows primarily, and gradually ossifies. The tibia, fibula, and humerus, are preferred by these tumors; the spongy bone-substance (of the tumor—*Tr.*) well supplied with blood, is intimately connected with the same substance of the upper or lower end of the affected bone; a thick perichondrium is easily removed from the superficially overlying stratum of cartilage, 1—1½ lines (.09—.18 inches—*Tr.*) thick; hence these exostoses are easily laid bare to the bone; because of the proximity of joints, these tumors sometimes cannot be extirpated without danger; in such cases the operation should never be pushed to the opening of the capsular ligament; according to Syme's observations, these exostoses are said to cease growing after the completion of the skeleton.

(b) *The ivory exostosis* also occurs in young individuals; it has neither a special covering of periosteum nor of cartilage, is

uneven, rough on the surface, and has its seat preëminently on the bones of the face and cranium, and on the scapula; on the whole it is very rare.

Exostoses do not return locally after the resection of the tumor from the bone; several tumors may be present simultaneously, but this also happens very seldom.

6. *Vascular tumors, Angioplasmata*.—Aneurisms and varices in their various forms are not, usually, included among pseudoplasms, and are described in connection with the diseases of arteries and veins. Only the dilatation of capillaries, and of the smaller veins and arteries approximating them, are here counted in as so-called *telangiectases, erectile tumors, fungi hæmatodes*. We must distinguish two kinds of them:

(a) *The telangiectasis* with its prolific development of vessels is the commonest form; it occurs nearly always congenital, is of pretty rapid growth in extent and depth, and consists of dilated, and for the most part new-formed, capillary and intermediate* vessels. These telangiectases may present a very different appearance according as the vascular disease has its seat: (1) superficially in the vessels of the papillæ; then a cherry-red spot, scarcely elevated above the skin, is produced, which gradually expands—or we see in the skin with the naked eye a multitude of little red blood-vessels that apparently have no (mutual) connection, or in other cases appear as peripheric processes of a red spot; (2) deeper in the cutis or in the subcutaneous cellular tissue; then arises a soft elastic tumor, usually of a steel-blue color; when extirpated, it collapses considerably and presents itself as a light-reddish lobular mass, which may often penetrate deep into the fat and even into the muscles. These two varieties not unfrequently combine, and then cherry-red tumors are formed that consist entirely of vessels, and in which all parts of the skin are uniformly affected by the vascular ectasis and proliferation. The safest and simplest mode of destroying the superficial forms of these tumors is by nitric acid; massy tumors of this kind are excised, or, if the hemorrhage is thought not to be easy to arrest, ligated or removed by the galvano-caustic ligature; the two last named methods, however, are not as safe as the extirpation, be-

* Intermediate between capillaries and arteries or veins; literally translated, "transition vessels."—TR.

cause in them one cannot precisely determine whether all diseased parts have been removed; small portions remaining always give rise to local relapses. Telangiectases occur only in the skin, and, by spreading, in the superficial muscles, often simultaneously in large number, but when well extirpated they do not return, and such tumors are never developed secondarily in internal organs.

(b) *The cavernous hæmatoma*, cavernous ectasis of veins; this resembles, on a section, the *corpus cavernosum penis*, and has, indeed, nearly the same structure; after the extirpation all blood has escaped, and a coarser or finer, much contracted network of meshes is seen with the naked eye, in which some coagula of blood or sometimes also small phlebolithes are found. (Perfectly analogous to these formations is the *cavernous lymphatic tumor*, in which the corresponding network is filled with a lymphatic fluid; this tumor occurs in the tongue and lips as *macroGLOSSIA* and *macroCHILIA CONGENITA*.) The cavernous tumors of veins present themselves in various forms: (A) they are tumors strictly enclosed in a capsule, and are connected very intimately with larger veins, *e. g.*, on the forearm; (B) they have definite limits, but are fed only by very small venous and arterial branches, as, for instance, most tumors of this sort in the liver; (C) they are without perceptible limits, and extend by a multitude of fine processes far around in the subcutaneous cellular tissue; these are sometimes joined again by varicose veins, and thus a limit is often not to be found at all during the operation, especially since the tissue cannot be discovered after the escape of the blood, because it collapses so much that it cannot be distinguished from the subcutaneous tissue; (D) they combine in the subcutaneous cellular tissue with fibroid tissue, with circumscribed and diffuse lipoma, in the skin with warty formations. The mutual relations in the development of these tumors are not yet explained. It is usually assumed that the small veins dilate and their approximated walls are resorbed; many cases speak in favor of this view, in which dilatations of veins exist in the vicinity of cavernous tumors, and likewise the manner in which these tumors are developed in bone; in many other instances, however, the evidence for this mode of development is wanting, and investigations in this direction should still be continued. Sometimes the cavernous tumors, also, are congenital, but in general this is very rare;

mostly they occur without a known cause in young individuals, often scattered over several parts of the body at the same time in great number. They grow slowly, but gradually metamorphose all adjoining parts into cavernous tissue; the skin covering them is either unaltered and normal, or colored steel-blue by the venous blood shining through it; the tumors are now larger, now smaller; sometimes exceedingly painful on the slightest touch, and always present distinct fluctuation unless they are combined with other tissues. When they are extirpated, they collapse at least to the fourth part of their volume, the swelling being based only on the contents of blood. Wholly extirpated they do not return, but the complete extirpation is sometimes very difficult, often impossible. Left to itself the cavernous phlebectasis attains an enormous degree of development, and may, since it not seldom occurs in the face and on the skull, become fatal by destroying the cranial bones; at the same time cavernous tumors may then form in internal organs also—in the liver, spleen, kidneys. In the liver, these tumors not unfrequently appear primarily, but never attain such a size as to become capable of being felt from without and of being diagnosticated; they partly destroy the parenchyma of the liver without creating any material disturbances in the hepatic function. For the first admirable investigations on cavernous tumors we are indebted to *Rokitansky*.

The *naevus telangiectodes*, *mole*, (*Feuermaul*), has about the same character as the telangiectasis, except that the dilatation of the capillary loops of the papillæ, in particular, is considerable; it is always congenital and has no individual growth, increasing only relatively with the growth of the corresponding portion of skin.

7. *Horny excrescences* are thickenings of the horny part of the epidermis with participation, at the same time, of the papillary body of the skin. In *callosities* and *corns*, the excessive formation of epidermis is the principal change, as likewise in the *cutaneous horns*, which may besides arise from the walls of atheromata; in *warts*, the hypertrophy of the cutaneous papillæ is more prominent, and also in the verrucose excrescences which form on the skin with contemporaneous elephantiasis. Warts occur especially on the hands of children, sometimes in enormous numbers, but not unfrequently recede

spontaneously. The warts of the lower lip are rare, their horny epithelium is softer than that of the cutis; so long as the degeneration is confined to the papillæ, they are not dangerous; these tumors are the ones *originally* designated as *cancroid* tumors; they do not return after complete extirpation; but if, by repeated irritation of the wart. The process of hypertrophy extends upon the neighboring parts, an epithelial cancer may be developed from the wart. The name of *cancroid* tumor has now been so completely transferred to the epithelial cancers, that the latter are all designated as *cancroid*; we shall recur to this in the paragraph on carcinoma (in the 3d group).

II. TUMORS WHICH OFTEN RETURN LOCALLY, BUT SELDOM INVADE INTERNAL ORGANS.

1. *Gland-like tumors, Adenoids, partial hypertrophy of glands.*—They originally derived their name from their gland-like appearance, and occur almost exclusively in the mamma. Their importance always depends on the nature of that new-formed tissue, which binds the acini together. Hypertrophy of the gland, in itself, is not applicable to the prognosis; it combines with the most various forms of tissue. A true new-formation of glandular substance, however, occurs preëminently only in simple tubular and racemose glands, and combines most frequently with a jelly-like connective tissue; these productions form the so-called *mucous polypi* in different degrees of organization, in general always analogous to the mucous membrane from which they arise, and are therefore to be considered as a lobular, polypous hypertrophy of mucous membranes; they are most frequent on the mucous membranes of the nose, rectum and uterus; from the acini of mucous glands contained in them, mucous cysts of greater or less size may be developed (*cystic polypi*). Inasmuch as a morbid disposition of the entire mucous membrane prevails in the development of these mucous polypi, it is not unfrequent that soon after the extirpation of one tumor another is formed, not considering even that the radical extirpation of these polypi can hardly be accomplished with certainty. A luxuriance of sudoriparous and sebaceous glands also occurs, but is certainly very rare; I have never observed it. Hypertrophy of compound tubular glands (testicles, kidneys) has, up to this

time, not been demonstrated with certainty. Among the compound acinous glands, the mamma is the only one where not only an independent excessive growth of one or both glands occurs, but individual lobules also can become hypertrophic, although with abnormal interstitial substance. (In this, I follow the hitherto generally received opinion, while according to my own observations a new-formation of acini does *not* occur in these tumors.) We have here especially to speak of the *adenoid tumors*. In their purest form they *about* resemble the gland during lactation; but this comparison, too, is only approximately correct, because the smallest lobules are never so distinctly seen and felt in the hypertrophy as in the physiologically turgescient gland; this results, because in the tumors the interstitial substance is never so perfect a connective tissue as in the healthy mamma. Adenoid tumors are of very light reddish-yellow color; on a section, a pappy mucous fluid can usually be scraped from the cut surface; the latter would not be distinguishable, in many cases, from that of a carcinoma but for containing always small fissures, (the lactiferous ducts of middle size,) which in a careful examination with the naked eye are never looked for in vain; besides, the tumor is usually distinctly limited, surrounded by a special capsule, and thereby even to be distinguished from carcinoma.

These are the anatomical characters; as they vary, so also vary their clinical relations: if the tumor is very hard and brittle on a section through it, if hardly any serum can be expressed from the cut surface, we recognize therefrom the prevalence of a fibrous interstitial tissue, and the tumor belongs rather to the fibroids. If the cut surface is covered with a viscid, hyaline mucus, and has rather a light red color, then the interstitial substance between the acini consists of mucous tissue, and this somewhat modifies the prognosis (*vid.* the colloid tumors). The adenoid tumors may also incline towards, and finally pass into, carcinoma and medullary tumor, whereof more below. But invariably are found in them those little fissures which never occur in primary carcinoma of the gland, but in adenoid tumors may gradually expand into larger cysts; finally, the acini also may dilate into mucous cysts; and thus ensues the transformation into cystoid tumors and cystosarcoma.

[To be Continued]

Action of different Medicines on the Mental Faculties.

By Professor OTTO.

All stimulant and exciting medicines increase the quantity of blood sent to the brain. If this quantity exceeds a certain amount, then most of the faculties of the mind become over-excited. Nevertheless the degree of this action is observed to vary a good deal in different cerebral organizations; and it is also found that certain stimulants exercise a peculiar and characteristic influence upon special or individual faculties. Thus ammonia, and its preparations, as well as musk, castor, wine, and ether, unquestionably enliven the imaginative powers, and thus serve to render the mind more fertile and creative. The empyreumatic oils are apt to induce a tendency to melancholy and mental hallucinations. Phosphorus acts on the instinct of propagation and increases sexual desire; hence, it has often been recommended in cases of impotence. Iodine seems to have a somewhat analogous influence, but then it often diminishes at the same time the energy of the intellectual powers. Cantharides, it is well known, are a direct stimulant to the sexual organs, while camphor tends to moderate and lull the irritability of these parts.

Of the metals, arsenic has a tendency to induce lowness and depression of spirits, while the preparations of gold serve to elevate and excite them. Mercury is exceeding apt to bring on a morbid sensibility, and an inaptitude for all active occupation.

Of narcotics, opium is found to augment the erratic propensities, as well as the general powers of the intellect, but more especially the imagination. Those who take it in excess are, it is well known, liable to priapism. In smaller doses it enlivens the ideas and induces various hallucinations, so that it may be truly said, that during the stupor which it induces, the mind continues to be awake while the body is asleep. In some persons opium excites inordinate loquacity. Dr. Gregory says that this effect is observed more especially after the use of the muriate of morphia. He noticed this effect in numerous patients, and he then tried the experiment on himself with a similar result. He felt, he tells us, while under the operation, an invincible desire to speak, and possessed, moreover, an unusual fluency of language. Hence he recommends its use to those who may be called upon to address any public assembly, and who have not sufficient confidence in their own unassisted powers.

Other narcotics are observed to act very differently on the brain and its faculties from opium. Belladonna usually impairs the intellectual energies; hyoscyamus renders the person violent, impetuous and ill-mannered; conium dulls and deadens the intellect, and digitalis is decidedly anti-aphrodisiac. Hemp will

often induce an inextinguishable gayety of spirits; it enters into the composition of the intoxicating drink which the Indians call *bauss*. The use of *amanita muscaria* is said to have inspired the Scandinavian warriors with a wild and ferocious courage. Tobacco acts in a very similar manner with opium. even in those persons who are accustomed to its use; almost all smokers assert that it stimulates the powers of the imagination.

If the psychological action of medicines were better known, medical men might be able to vary their exhibition, according to the characters and mental peculiarities of their patients. The treatment of different kinds of monomaniacal derangement also might be much improved, and it is not improbable but that even a favorable change might be wrought on certain vicious and perverse dispositions, which unfortunately resist all attempts at reformation, whether, in the way of admonition, reproof, or even of correction.—*South. Med. & Surg. Jour.*

Hydrochloric Acid in Chronic Dyspepsia. By Dr. SCHOTTIN,
of Dresden.

Dr. Schottin has used hydrochloric acid with great success in cases of chronic dyspepsia. The curative effect of the remedy is attributable to two circumstances: *First*, it suspends, like other powerful acids, the process of fermentation; and, *secondly*, it serves to dissolve the proteinaceous compounds, being, to a certain extent, a substitute for the disturbed secretion of the gastric juice; it is, therefore, the most natural remedy. In children who suffer from gastric and intestinal catarrh, the author prescribes the acidum muriaticum dilutum of the Prussian pharmacopœia, in doses of six to fifteen drops, in a mucilaginous mixture, and adds, until the bowels are regulated, a few drops of tincture of opium. He orders the medicine to be taken half an hour after each meal, and confines the patient to a diet of milk and broth. In old age, when the strength of the system is gradually falling, disturbances of digestion are very frequent, the cause of which is to be found, in many instances, solely in a diminished secretion of the gastric juice. A double indication is to be fulfilled in these cases: to arrest the process of fermentation, and to stimulate the stomach, in order to increase the secretion of the gastric juice. Dr. Schottin recommends for this purpose small doses of chloride of sodium and sulphate of quinia, to be followed, a short time afterwards, by sulphuric acid. The chloride of sodium is decomposed by this means into sulphate of soda, and hydrochloric acid. He prescribes ten grains of chloride of sodium and one-third of a grain of sulphate of quinia, to be taken four times

a day wrapped up in a wafer, lets the patient drink some water after it, and administers, about five minutes later, eight to twelve drops of the elixir acidum Halleri in a half a wineglassful of water.

The dyspepsia of drunkards requires a double dose of sodium and sulphuric acid. Dr. Schottin attributes the effect of hydrochloric acid in typhus, anæmia, and chlorosis likewise, to its property of suspending the process of fermentation within the stomach, and of exciting the deficient secretion of the gastric juice.—*Archiv. der Heilkunde.*—*Southern Med. & Surg. Journal.*

A Case of Leucocythæmia. By Dr. GEORGE SHEARER, Resident Physician, Royal Infirmary, Edinburgh.

A young man, aged twenty-four, a miller by trade, admitted to the infirmary under the care of Dr. Gairdner, affords an interesting illustration of leucocythæmia. Three weeks elapsed from his admission to the time of his death, and "the following is a summary of the facts of the case in regular sequence: anæmia, languor and debility; epistaxis; headache; bleeding from the gums; renal pain, with lithiasis; febrile symptoms; disappearance of lithic acid, and appearance of lithates and albumen; diarrhœa; reappearance of lithic acid; uncontrollable epistaxis; hæmatemesis; otitis; exhaustion, and death."

The crystalline deposit in the urine, on third or fourth day after admission, consisted mainly of hexagonal crystals of the lithic acid, with a few of the ordinary rhomboidal crystals. These, we have already said, afterwards disappeared. *Post-mortem* examination revealed leucocythæmia, enlarged spleen, fatty liver, petechiæ on the mucous membrane of stomach and on the serous surfaces of the pericardium and endocardium.

The case detailed by Dr. Shearer gives him a field for reflection, which he discusses in the following suggestions:

1. Enlargement and activity of the spleen is not the only condition involving increase of the white corpuscles, there being at present a case in the infirmary in which this condition of the blood co-exists with enlargement of the whole lymphatic system of glands, without detectable enlargement of the splenic organ.

2. The fact of a great excess of white corpuscles in the blood in cases of leucocythæmia being accompanied by constant diminution of the red discs, appears to militate against the theory put forward by Wharton Jones, and supported by Bennet and others, that the latter are derived from the former by liberation of their included nuclei; for, according to their theory, increased

activity in the formation of the white ought, *pari passu*, to be attended by increased development of red discs, while the reverse is the case. Comparative increase of the white corpuscles is seen in a variety of organic diseases, especially chest affections; but it also occurs in dysentery, diarrhoea, paraplegia, etc.; in all of which one general condition was observed, viz., depreciation of the appetite, and emaciation. These facts, Dr. Shearer thinks, point to the blood itself as the primary source of origin of the red discs, and in all the diseases mentioned there is either a deficiency of nutritive pabulum taken into the blood for the production of the red corpuscles, or these are rapidly melted down to supply the elements of the discharge. In leucocythæmia, again, the nutritive pabulum is appropriated for the formation of the white corpuscles, the blood being thereby impoverished to the extent to which these are increased; development of the red discs is consequently kept in abeyance, and anæmia is again the result.

3. The deficiency of color in the urine and the salts obtained from it depends probably upon the same cause as the pallor of the general surface, viz., deficiency of red globules and hæmatin in the blood.

4. Careful study of the deposit of lithic acid seemed to warrant the inference that the common or lozenge-shaped crystals is derived from the perfect hexagonal form by shortening of the lateral planes of the latter; but this does not explain the formation of the true rhombic crystal, which is an irregular form.

5. Hemorrhage from various mucous surfaces forms a prominent feature of this disease, and may depend partly upon the increased tension maintained in vessels by the absolute increase of volume in the mass of the blood, and partly upon the imperfect nutrition of the walls of the capillaries from the inferior quality of the blood for histogenetic purposes.

6. The white corpuscles, we know, are closely allied to fibrin in composition and character; fibrin is increased in febrile and inflammatory diseases, and accompanying this is an increased elimination of lithic acid, or lithates, by the kidneys. Can any relation exist between the lithuria present in this case, and the increase of white corpuscles in the blood?—*Southern Med. & Surg. Jour.*

On Uræmia. By Professor JAKSCH.—*Vierteljahrschrift für die praktische Heilkund*, xvii. Jahrgang., 1860.

The author of this paper holds that there are two varieties of uræmia which should be carefully distinguished; one being caused by the decomposition of urine and absorption of carbon-

ate of ammonia into the blood (*ammonæmia*), the other being the variety which accompanies Bright's disease of the kidneys. He has seen the former occur under the following circumstances:

1. In torpor and paralysis of the bladder.
2. In dilatation of the pelvis and callices of the kidney in consequence of the ureters being blocked up.
3. In renal abscess, renal tuberculosis and sacculated kidneys.

The following are the main differences characterizing the two forms of *uræmia*; we shall, to save circumlocution, use the word *ammonæmia* as the name of the one, and Bright's *uræmia* as the name of the other:

1. In advanced *ammonæmia* the urine discharged from the bladder manifests a strong ammoniacal odor, which Prof. Jaksch has never noticed in any stage of Bright's *uræmia*.

2. Dropsical symptoms, either acute and febrile, or chronic and afebrile, have not been observed in *ammonæmia*.

3. Advanced *ammonæmia* is characterized by persistent dryness of the mucous membrane covering the mouth and fauces, as if every particle of moisture had been removed by blotting-paper; the membrane looks dry and shining, and the dryness even extends to the mucous membrane of the nose, the conjunctiva, and even to the chordæ vocales; these symptoms do not occur in Bright's *uræmia*.

4. The distinctly ammoniacal odor of the air exhaled, and of the cutaneous secretions of patients affected with *ammonæmia*, does not occur in Bright's disease.

5. Patients suffering from *ammonæmia* always show a marked dislike to meat, and especially brown meats, even if their affections have not advanced very far; a feature rarely seen in the other variety.

6. Prof. Jaksch has never observed in Bright's disease the violent intermittent rigors, stimulating intermittent fever, which occur in *ammonæmia*.

7. In none of the cases of *ammonæmia* were convulsive or epileptiform attacks, nor croupy or diphtheritic exudations noticed.

8. Disturbed vision, as produced in Bright's disease by exudation on the retina, does not appear to take place in *ammonæmia*.

9. Chronic *ammonæmia* is characterized by a uniformly pale and sallow complexion, and by gradually increasing emaciation; very acute and advanced *ammonæmia* is associated with very rapid wasting of features, and muscular debility amounting to paralysis.

10. In all cases of *ammonæmia* which ran a rapid course there was vomiting, with concurrent or consequent diarrhœa; in chronic *ammonæmia* both phenomena were often entirely absent, or only occurred temporarily.

11. In ammonæmia, whether acute or chronic, Prof. Jaksch has always seen death occur after sopor, varying in duration from several hours to several days.

The author of this valuable and interesting paper gives numerous cases illustrative of his views, and enters very fully into the various questions connected with diagnosis and treatment, for which we are unable to make room.—*Ibid.*

THERAPEUTIC VALUE OF ERGOT.

In a long and very able article on Ergot—the *Secale Cornutum*—by E. N. Chapman, M.D., of New York, Professor of Materia Medica and Therapeutics in the Long Island College Hospital, and published in the Boston Medical Journal, the following deductions are given. The whole article is worthy of perusal, but is too long for our pages.—Eds.

In conclusion, we will briefly recapitulate the main points, deduced from the data hitherto presented.

1st. The active principles of ergot are the products of a plant, the odium abortifaciens. These are peculiar to it, and are in no wise more dependent on the grain-germ than any plant is on the soil that affords it nourishment.

2d. These principles—not as yet isolated—are, probably, two in number; one of which, contained in the oil, produces narcotic symptoms, and eventually gangrene; the other, remaining in the residue after the extraction of the oil, acts by stimulation on the motor tract of the spinal marrow at that limited portion whence the uterus and contiguous muscles receive their nerves of motion.

3d. The oil is alone efficacious in any form of hemorrhage, excepting in that from enlarged uterus, and we can only look for favorable results when the system has been brought under its influence, as shown by a narcotic impression on the brain and heart.

4th. So hazardous a treatment cannot be countenanced; since we possess other remedies of known virtues, not only more reliable, but unattended with any risk.

5th. The watery preparations, which, lacking the oil, can be given many days in succession, will act on the motor tract of the spinal marrow, but will not induce ergotism or other evidence of a narcotic poison.

6th. Ergot of good quality causes the uterus to contract with great certainty whenever its cavity is distended, either by a foetus or a morbid growth. These contractions are tonic and continuous, with periods of remissions and exacerbations.

7th. Hence, this remedy may originate uterine pains at any period of gestation, or cause the expulsion of clots, hydatids, or any other unattached substance.

8th. Likewise, after labor, it will check an excessive flow by closing the mouths of the bleeding vessels through a condensation of the muscular fibres of the uterus. In relaxed conditions it will be, on the same principle, beneficial in after-pains attended with a copious show.

9th. Since we know of no other mode by which ergot can immediately arrest hemorrhage from the pregnant uterus, it should be avoided in all cases where a hope still remains of saving the conception, and its agency invoked only when the foetus is dead or the safety of the mother becomes our first duty.

10th. In premature labor, induced by ergot, or in labor at the full period, where this drug is given, the child's life is jeopardized in all cases, where, for a considerable period previous to the delivery, the uterus is thrown into violent spasmodic action; since thus the supply of oxygen will be most effectually cut off.

11th. Where the child is viable, the ergot should never be used as an expulsive agent to increase pains, already powerful, or overcome resistance from the soft parts of the mother.

12th. It may be required in cases of inertia of the uterus where, with all the parts relaxed, we are quite certain, both from the present appearances and the history of former labors, that the child would be born in four or five vigorous natural pains.

13th. The dangers to the mother from the use of ergot, arise from the uterus, thus stimulated, rupturing the unyielding parts in its transit. Thus the neck of the uterus, the bladder or the perineum may receive serious injury.

14th. Rupture of the uterus could hardly occur, excepting in a diseased organ.

15th. A premature foetus from its small size and the yielding nature of the cranial bones could scarcely, under any uterine effort, cause damage to the soft parts of the mother.—*Chicago Medical Examiner.*

TREATMENT OF NEURALGIA.

Hérard speaks in the highest terms of sub-cutaneous injections of the sulphate of atropine, with the small syringe of Ravaz. A fine trocar is first inserted, then taken out, and the tube, remaining in the wound, screwed on to the syringe. One drop of the solution is injected at a time, followed shortly by from five to nine more. This quantity corresponds to three or five milligrammes of the sulphate, the solution holding thirty centigrammes of the

atropine in thirty grammes of distilled water. In twenty-five injections no evil consequences whatever appeared in the neighborhood of the wound, but general symptoms always became manifest in a few minutes; dryness of the mouth and fauces, headache, dizziness, sometimes dilatation of the pupils, disturbance of the vision, nausea. All these symptoms disappeared in less than twenty-four hours. Of ten patients thus treated, three were suffering from ischias, three from muscular rheumatism, two from muscular pains combined with hemiplegia, one from a contusion, one from a facialgia. Relief followed always, except in the contusion; but most of the cases required several injections in the course of a few days. The result was most evident and surprising in the ischiatic affections.—*L'Union Médical*, 1859, p. 92; *Oesterr. Zeitschrift für Prakt. Heilk.*

The treatment of neuralgia by the injections of narcotics and sedatives has been ably expounded, with illustrating cases, by Dr. A. Rappaner of Boston. His first step is to determine the precise seat of irritation, to localize the pain. According to Valleix, (*Traité des Neuralgies*, Paris, 1841,) the points from which all really neuralgic pains proceed may be arranged under four heads: 1. The place of emergence of the nervous trunk, for example, the trifacial at the supra and infra-orbital and mental foramen; 2. The point where a nervous twig traverses the muscles to ramify on the integuments, similar to the parts which are traversed by the posterior spinal nerves; 3. The point where the terminal branches of a nerve expand in the integuments, as the terminal principal branches of all the cutaneous nerves, among which we may mention the anterior part of the intercostal nerves; 4. The point where nervous trunks become superficial during their course, as the peroneal nerve.

It would require too much space to give a complete list of all these points, described by Valleix with admirable industry and precision. Fortunately they are easily discovered by going over the affected nerve with the edge of a small coin; as soon as the starting-point is touched, even during the absence of pain, the distress of the patient clearly indicates where the injection is to be made. Relief can of course only be expected where the affection is of an idiopathic character, not dependent on disease of the brain, morbid condition of the bones, etc. In such instances, the local manifestation in the conducting nerve may to a great extent be under the influence of treatment specially directed to it, yet this will, for obvious reasons, do little good, if, indeed, it ever proves beneficial at all. The injections used by Dr. Rappaner are of different strength, one, two, three, or four grains of acetate of morphia being dissolved in one drachm of sherry wine. Of this solution from ten to twenty drops are injected. Oedematous swelling usually follows, accompanied by drowsiness, dif-

ferent sensations all over the body, nausea and vomiting; but the pain generally subsides soon, and all these unpleasant symptoms disappear in the course of twenty-four hours. Should the sickness of the stomach prove too embarrassing, it may be relieved by the sub-nitrate of bismuth, one scruple in an ounce and a half of the compound infusion of gentian, and half an ounce of mint-water, a teaspoonful every half hour. Warm hops form a good application to the œdematous swelling.

In all cases where the cutaneous, and particularly the superficial cutaneous nerves have been the seat of the malady, this treatment has answered the most sanguine hopes. Even in cases of long standing, when combined with constitutional treatment, it has given relief, after all other possible expedients have been tried in vain. The constitutional treatment is a principal condition of success. Almost without exception a tonic treatment is indicated, and vegetable tonics are preferable. The sulphate of quinine is usually followed by good results. A tonic course ought to be adopted, with few exceptions, from the commencement of the treatment, going hand in hand with the local applications, which latter should not be resorted to (?) until other remedies have failed. In mild cases, or such of short standing, a solution of the valerianate of ammonia will often do good service, either alone or in conjunction with the injections.—*Boston Med. & Surg. Jour.*

Dr. L. D. Robinson of New Elizabeth, Ind., in trying to elucidate the ill-understood pathology of idiopathic neuralgia, arrives at the conclusion, that the principal exciting cause is a deranged condition of the blood, with an excess of saline matter over the red corpuscles, which condition is brought about by any debilitating influences, such as anæmia, malaria, etc. A rational treatment ought therefore to consist of tonics, of which the mineral, and especially the ferruginous tonics are stated to be the most efficacious; but as a general thing these require to be combined with a vegetable anti-periodic remedy, especially in malarial districts. As a specimen, some prescriptions are given for hemicrania: Chinoidine, twenty-four grains; pulvis an. cap. (so it reads in the original paper; if it is not an error, for pulvis capsici annui, we are at a loss to determine what it means), five grains; strychnia, one grain. Make ten pills; one of them is to be taken before each meal. After using them sufficiently long to break down the paroxysms, they are replaced by the following:

R—Quevenne's iron, sixty grains;

Quinine, “ “

Extr. hyosciami, forty “

Pulvis an. cap., twenty “

divide into forty pills. Dose, one pill after each meal, and to be continued until completely relieved of debility.

It must not be overlooked, that there is another form of neuralgia, denominated symptomatic, because it is dependent upon a diseased condition of organs connected with the affected nerve, commonly some kind of irritation; for instance, nephralgia caused by a calculus in the kidney or ureter. Cases of this kind generally demand depletives and narcotics, especially the latter.—*Chic. Med. Examiner.*

Besides the rules laid down above, there is another one never to be lost sight of in the treatment of so many-shaped an affection as symptomatic, or, to use a more appropriate term, secondary neuralgic pain. It is the old truism: *deleta causa tollitur effectus*. If we can remove the existing cause of the pain, the latter will seldom require much attention, unless a too long continued morbid influence has developed the secondary to a primitive affection.

Affusions of ether are believed by Dr. Betbeder of Bordeaux to be superior to all the methods ordinarily used. He pours fifteen, thirty or sixty grammes of ether on the most painful points, covering them immediately by a small square of linen, which is kept in the closet adhesion to the skin by an assistant. Small quantities of ether are poured on the linen at intervals of about a minute. In recent cases, the relief is stated to be almost instantaneous, and frequently there is no return of the trouble. In neuralgia of long standing the effect is much less certain, but in several cases a cure has been effected.—*L'Union de la Gironde. N. Y. Med. Press.*

Dr. Jueneau de Mussy has prescribed for three years a mixture of chloroform and aconite against neuralgia in different regions, but chiefly in facial neuralgia, producing sometimes a complete and permanent cure, and always an almost immediate and considerable relief. When the neuralgia appears to be idiopathic, the formula is: two parts of spirit of wine or cologne-water, one part of chloroform, and one of tincture of aconite. The finger, covered with a piece of lint or soft thick linen, is dipped in the mixture and rubbed gently against the gum for a few minutes. When the pain is connected with some organic disease, as a deranged tooth, chronic inflammation of the gums or even superficial necrosis of the bone, the tincture of iodine is a very beneficial substitute for spirit of wine in the above formula. It is chiefly in neuralgia of the infra-orbitary branch that the application has been successful, but it answers almost equally well in pain of the lower branch, and has been attended with satisfactory results in some very severe cases of supra-orbitary neuralgia, thus showing that the sedative agent may produce its effect, as the irritating one so frequently does, on a part distant from the spot on which it was applied, and even in a different branch of the nerve.—*Med. Times & Gaz.*

Dr. F. P. Bibby found no remedy more beneficial in neuralgia than the iodide of potassium, in full doses. Exciting the secretions and excretions, it may be supposed to act by eliminating the morbid causes, and in this way probably its effect is to be explained in chronic rheumatism, chronic syphilis, and other analogous conditions. For the same reason it may be expected to cure neuralgic troubles generally.—*Md. & Va. Med. Jour.*

According to Dr. Th. Roche (*Bullet. de la Soc. Méd. de Besançon*, No. 8), the solution of two or three decigrammes of cyanide of potassium in thirty grammes of water cures neuralgia, if it is superficial and localized. In ten cases of cephalic neuralgia and one of pleurodynia, nine cures were obtained—seven times by the simple and sole application of the topical remedy, and twice by associating it with the internal use of preparations of belladonna. In the two unsuccessful cases the treatment consisted of the external application of the cyanide and the internal administration of the narcotic solanaceæ. The solution seems to act by cutaneous absorption of the salt in the state or cyanide or free hydrocyanic acid.—*Echo Medical Suisse*.—*North Amer. Med. & Chirurg. Review*.

Induction of Premature Labor and Abortion.

Three very instructive cases of this kind are reported by Prof. Henry Miller of Louisville.

Mrs. B——, having lost three large and well developed children at the full term, on account of the necessity of resorting to the perforator and crotchet, applied for advice during the fifth month of her fourth pregnancy. A morbid inclination of the superior strait of the pelvis was manifest, giving an unusually low position to the external genitals; but the os uteri could be reached only with difficulty, while it was impossible to ascertain the size of the womb itself, or the presence of any reliable symptom of pregnancy. Two months afterward, however, these symptoms had developed themselves sufficiently to allow a correct diagnosis, and two weeks later the induction of premature labor was undertaken. For this purpose, the uterine douche, so strongly urged in preference to all other methods by the late Professor Kiwisch, was resorted to, the apparatus designed by Kiwisch being employed, with a slight variation. To the bottom of a tin box, about ten inches square, and holding about four gallons, an India-rubber tube twelve feet long was attached by a screw and nut. The tube had a metallic tube, fashioned at the end like the nozzle of a common enema syringe, affixed to its other extremity. Instead of arranging the apparatus to act on the principle of the

syphon, as recommended by Kiwish, a stop-cock was adapted to the tube about two feet from its metallic end. To put the apparatus in operation, the box must be suspended on a nail driven into the wall, say nine or ten feet from the floor; the tube is screwed on, and the cock turned so as to prevent the flow of water till it is wanted. The patient takes her seat on a stool placed in a bath-tub to receive the water; the metallic nozzle is introduced into the vagina, and brought in contact with the os uteri. The tin box having been previously filled with water, the stop-cock is turned so as to pour a continuous stream upon the os uteri, until all the water in the box is discharged. Kiwish preferred to use warm water in douching, directing it at first of a temperature upward of 100 deg. Fahr., and afterward raising the temperature considerably higher.

In this way the douche was applied first once, then twice, a day. After three days, the fundus uteri was found lower in the abdomen, the os softened and dilated, but no labor pains. Two days more brought rather a tardy progress, and for that reason the suggestion of Dr. Tyler Smith was adopted, viz., to use warm and cold water alternately. During the night of the next day the pains increased sufficiently for the expulsion of the fœtus, and early the next morning the woman brought forth a living child, after a labor of average intensity and duration, and without any aid except that required in every case of natural labor. The woman had a rapid convalescence, uninterrupted by accidents of any kind.

In the other two cases abortion was produced at the fourth month of pregnancy; one on account of a highly contracted pelvis, with an antero-posterior diameter in the superior strait of less than two inches; and again in a lady who had given birth to seven children, but was suffering from the separation of the symphysis pubis and of the right sacro-iliac symphysis, so as to be unable to use her lower extremities for any purpose whatever. In the former case, a second pregnancy, the warm and cold douches were kept up for a month, but utterly failed in awakening the uterine contractions; then the uterine sound was introduced, and allowed to remain in the uterus until pains appeared, which occurred in twelve hours. Seven hours subsequently, the ovum was expelled. The mother recovered.

The uterine sound was also selected for the other pitiable case; but, notwithstanding its being introduced to the depth of more than three inches between the membranes and the anterior wall of the uterus, and its point being turned first toward one side of the uterus and then toward the other, only a slight pain followed, without any expulsive effort. Eighteen days later, the method of Cohen was adopted, viz., the injection of water between the membranes and the inner surface of the uterus. By means of a

silver tube not unlike a male catheter, and a syringe, two and a quarter ounces of warm water were thrown in at noon. An hour afterward, there was a chill, followed by smart fever and headache. This passed off in about four hours, leaving a dull pain in the hypogastrium and back. In the early part of the night, well-marked labor pains set in, growing stronger toward morning, and expelling the foetus at 10½ o'clock A.M. By means of continuous and gentle assistance, the secundines came away without rupturing the cord, leaving the membranes and all attached to the foetus. In less than a week the mother was sent home, with the advice to wear a leather belt slightly buckled around the pelvis.—*Louisville Med. Jour.*

Mal-position of the Fœtus corrected by external Manipulation.—The evidence is fast accumulating that the position of the foetus cannot only be ascertained by external manipulation, but also corrected by a careful operation. Dr. E. B. Barret, house physician at the Bellevue Hospital, New York, reports to the New York Medical Times, as follows: Mary Ann, aged seventeen years, born in Ireland, was admitted March 19, 1860, in her first pregnancy. Uterine tumor very conical, projecting markedly to the right as well as forward, triangular in shape, with its transverse diameter greatest; os uteri dilated to the size of a dollar, and dilatable; membranes very full, projecting strongly from the os, but so tense that no part of the child could be felt, from danger of rupturing them; pains rather teasing. Little or no progress being evident until next morning, an opiate was administered, resulting in a refreshing sleep, after which the pains increased in force and frequency, but with no result save the further dilatation of the os. The previous conjecture that a transverse presentation existed, was rendered nearly certain by palpation. Prof. Barker came to pay his daily visit, at this juncture, and, concurring in the opinion just stated, decided on immediate interference. The patient being brought under the influence of chloroform, the head could be felt through the abdominal walls, in the left iliac fossa, above the pubis; the pelvic extremity of the foetus in the right iliac fossa, and the curve of its back strongly projecting forward; consequently the right shoulder was the presenting part. Cephalic version was decided on in preference to the ordinary method, and Dr. Barker at once proceeded to the operation. The patient being brought to the edge of the bed, in the approved position, he first attempted to elevate the pelvis of the foetus with his left hand, and to depress the head with the right, acting only when the uterus was not contracting. As soon as he had succeeded in changing the position of the foetus, strong pressure was applied over the left iliac fossa by an assistant, while Barker, still elevating the child's pelvis with his left hand, introduced two fingers of the other into the vagina,

and ruptured the membranes during a contraction. The waters escaped with great force and abundance, and the head could now be felt in the superior strait. The administration of chloroform was now discontinued. Slight pains, with little progress, followed for fifteen minutes, and as the foetal heart was beating somewhat feebly, it was then deemed necessary to apply the forceps. With them, a male child, weighing eight pounds, was extracted in a partially asphyxiated condition. Respiration, however, was established in a short time. The placenta came away in five minutes, with no more than the usual amount of hæmorrhage, and the mother proceeded to a rapid recovery.

[*Cin. Lancet & Observer.*

Mormonism, in its Physical, Mental and Moral Aspects.

The following is a brief extract from the sanitary report of Assistant Surgeon Bartholow, one of the medical officers attached to the army corps, which passed the winter of 1857-8, in Utah.

"The Mormon, of all the human animals now walking this globe, is the most curious in every relation. It would be quite beyond the scope of this report to say anything of the political and religious aspects of Mormonism; but as a great social solecism, seriously affecting the physical stamina and mental health, it is full of interest to the medical philosopher. Isolated in the narrow valleys of Utah, and practising the rites of a religion grossly material, of which polygamy is the main element and cohesive force, the Mormon people have arrived at a physical and mental condition, in a few years of growth, such as densely populated communities in the older parts of the world, hereditary victims of all the vices of civilization, have been ages in reaching. This condition is shown by the preponderance of female births, by the mortality of infantine life, by the large proportion of the albuminous and gelatinous types of constitution, and by the striking uniformity in facial expression and in physical conformation of the younger portion of the community. The 'peculiar institution' is practically upheld by the older men, the elders, bishops, apostles, and prophets; and so eager is the search for young virgins, that notwithstanding the preponderance of the female population, a large per centage of the younger men remain unmarried. To sustain the system, girls are 'sealed' at the earliest manifestation of puberty, and I am credibly informed that means are not unfrequently made use of to hasten the period. The activity of the reproductive function, as a rule, is not diminished by polygamy; on the contrary, the women are remarkable for fecundity; but in the harems the proportion of children arriving

at maturity is much less than in the rural districts of our country. An illustration of this fact is afforded by the results in that chief of polygamists, Brigham Young's case. He has, at least, forty wives. A large number of children have been born to him, a majority of whom died in infancy, leaving twenty-four, according to the most reliable accounts. These forty women in monogamous society, married, would have probably one hundred and sixty children, two-thirds of whom, under hygienic circumstances equally favorable, would have been reared. In Brigham Young and his wives, we have presented the most favorable conditions for successful polygamy possible in Mormon society, yet, in this instance, the violation of a natural law has been speedily evinced. One of the most deplorable effects of polygamy is shown in the general weakness of the boys and young men, the progeny of the 'peculiar institution.' The most observant Mormons cannot hide from themselves the evidence of these sad effects. One of their saints, Heber C. Kimball, in recent sermons, has adverted to this sexual debility, but, with a singular blindness, attributed it to a vicious style of dressing. The sexual desires are stimulated to an unnatural degree at a very early age, and as female virtue is easy, opportunities are not wanting for their gratification. It is a curious fact, that Mormonism makes its impress upon the countenance. Whether owing to the practice of a purely sensual and material religion, to the premature development of the passions, or to isolation, there is, nevertheless, an expression of countenance and a style of feature, which may be styled the Mormon expression and style; an expression compounded of sensuality, cunning, suspicion, and a smirking self-conceit. The yellow, sunken, cadaverous visage; the greenish-colored eyes; the thick, protuberant lips; the low forehead; the light, yellowish hair; and the lank, angular person, constitute an appearance so characteristic of the new race, the production of polygamy, as to distinguish them at a glance. The older men and women present all the physical peculiarities of the nationalities to which they belong; but these peculiarities are not propagated and continued in the new race; they are lost in the prevailing Mormon type.

"If Mormonism received no additions from outside sources, these influences continuing, it is not difficult to foresee that it would eventually die out. The increase of population independently of large annual accessions from abroad, has not been co-equal with the increase in other portions of our country. The results of polygamy here are not to be compared, without some limitations, to the results of the same institution elsewhere; its decadence must follow more speedily. In eastern life, where it has been a recognized domestic institution for ages, women are prepared for its continuance, and do not feel degraded by their

association with it. The women of this Territory, how fanatical and ignorant soever, recognize their wide departure from the normal standard in all Christian countries; and, from the degradation of the mother, follows that of the child, and physical degeneracy is not a remote consequence of moral depravity.

"Mormonism, considered in a relation purely sanitary, presents some interesting features. The Mormon theology contemplates the cure of disease by miraculous interposition; hence the disciples of the healing art are not held in much estimation. The church authorities are exceedingly jealous at an attempt to cure by ordinary therapeutics, and denounce from the pulpit any invasion of their special province. Though they claim for the 'laying on of hands' (*cheirapsia*) wonderful efficacy, the number of deformities, the result of mal-practice, to be seen in any of the populous towns, rather indicates a necessity for the use of carnal means. The art of surgery is at a low ebb. Epidemic erysipelas of a virulent form is reported to prevail in this Territory; but, thus far, no cases of the disease have fallen under the observation of medical officers serving with this army. I have reason to believe that 'erysipelas' is a conventional term applied to various dissimilar affections, as rheumatism, erythema, anthrax, &c."—*Georgia Med. & Surg. Encyclopædia*.

CANNABIS INDICA AS A HYPNOTIC.

Dr. Fronmuller, after a large number of experiments, draws the following resumé of the value of this drug:

"Of all anæsthetics ever proposed, Indian hemp is the one which produces a narcotism most closely resembling the natural sleep without causing any extraordinary excitement of the vessels, or any particular suspension of secretions, or without fear of a dangerous reaction, and consecutive paralysis. It acts neither as violently nor as surely as opium. It can be given in all acute inflammatory diseases as well as typhoid affections. It is well adapted as an alternate with opium in case this ceases to act. Its best mode of administration consists in pills of the alcoholic extract and powdered seed. The smallest dose susceptible of producing sleep is eight grains in pills of one grain. This dose, however, must be rapidly augmented. The action on the skin, the kidneys, and sexual organs, attributed to Indian hemp, is without any practical importance.—*Jour. of Materia Medica*.—*N. C. Med. Jour.*

Practical Observations upon the Nature and Treatment of Prostatorrhœa. By Professor GROSS.

The disease which I am about to describe, has not, so far as is known to me, received any attention either from specialists or from the authors of general treatises on surgery. The term by which it is here designated appears, it is true, in M. Nelaton's "*Elemens de Pathologie Chirurgicale*," but altogether in an incidental manner, and evidently without any definite idea on the part of that distinguished writer as to the true nature of the affection in question.

Prostatorrhœa is, as the name implies, a discharge from the prostate gland, generally of a thin, mucous character, dependent upon irritation, if not actual inflammation, of the component tissues of that organ. The reason why the disease has not received any specific name or place in surgical nomenclature, is, simply because it has always been confounded with other lesions, as gleet, or chronic urethritis, seminal losses, and cystorrhœa, or chronic inflammation of the mucous membrane of the bladder, from which, in fact, it is often difficult to distinguish it. As for myself, I have long been familiar with the affection, and latterly have described it in my lectures at the College.

I have not met with prostatorrhœa in children or very young subjects, probably because all kinds of diseases of the prostate are so very rare at that period of life. That it may occur, however, even at a very tender age, is altogether likely. especially in children laboring under stone in bladder, prolapse of the bowel, or worms in the rectum, causing the organ to suffer from reflected irritation. After the twentieth year the disease is sufficiently common, and instances are occasionally met with even in very old persons. As long as the prostate gland remains small and inactive, or is not brought fully under the influence of the sexual organs, with which it is so intimately associated, it is comparatively infrequent.

I am not able to say, from my inexperience, what classes of persons are most liable to suffer from this affection; but it has seemed to me that it is most frequent in those of a sanguineo-nervous temperament, with strong sexual propensities, leading to the frequent indulgence of the venereal appetite, if not to positive venereal excesses, either in the natural manner or by masturbation. An irritation would thus seem to be established in the prostate gland, attended with more or less discharge of its peculiar secretion, either in a normal or abnormal state. Single and married men are, apparently, prone to it. Once established, it is probable that certain occupations may serve to keep it up; and it is also likely that there are certain employments which may pre-

dispose to it, although it would require a much longer experience than is possessed by any one individual to point them out in a definite and satisfactory manner. Intemperance in eating and drinking, frequent horseback exercise, sexual abuse, disease of the bladder, anus, and rectum, may all be regarded as contributing to such a result.

The exciting *causes* of prostatorrhœa are not always very evident. In most cases that have fallen under my observation, the affection was traceable, either directly or indirectly, to venereal excesses, chronic inflammation of the neck of the bladder, stricture of the urethra, or disease of some kind or other of this canal. In some cases it has its origin in disorder of the lower bowel, as hæmorrhoids, prolapse, fissure, fistula, ascarides, or the lodgment of some foreign body. It is easy to conceive how reflected irritation might produce this disease. The connection between the prostate gland and anorectal region is very close and intimate, and hence, whatever affects the one will almost be sure, in time, to implicate the other, either in consequence of the proximity of structure, or as an effect of the laws of sympathy. However this may be, no judicious surgeon ever omits to examine those parts most thoroughly, in the event of any serious disease of any of them, before he attempts a course of treatment. Temporary prostatorrhœa is occasionally excited by the exhibition of internal remedies, as drastic cathartics, cantharides, and spirits of turpentine; or, in short, whatever has a tendency to invite preternatural afflux of blood to the prostate gland and neck of the bladder, or to the posterior portion of the urethra. Another cause of the disease, and, according to my experience, a very common one, especially in young men, is masturbation or self-pollution. Many of the most obstinate and perplexing cases of it that have come under my notice were the direct result of this detestable practice.

The *symptoms* of prostatorrhœa are sufficiently characteristic. The most prominent, as already stated, is a discharge of mucus, generally perfectly clear and transparent, more or less ropy, and of varying quantity, from a few drops to a drachm and upwards, in the twenty-four hours. It is seldom that it is puriform, and still more rare that it is purulent. When considerable, the flow keeps up almost a constant moisture at the orifice of the urethra, and may even make a decided impression upon the patient's linen, leaving it wet and stained, somewhat in the same manner as in gleet or gonorrhœa, though in a much less marked degree. The most copious evacuations of this kind generally occur while the patient is at the water closet, engaged in straining, especially if the bowels are constipated, or the fecal matter is uncommonly hard, or greatly distends the rectum, so as to exert an unusual amount of pressure upon the prostate gland.

The discharge, whether small or large, is often attended with

a peculiar tickling sensation, referred by the patient to the prostate gland, from which it frequently extends along the whole length of the urethra, and even to the head of the penis. In some cases, indeed in many, the feeling is of a lascivious, voluptuous, or pleasurable nature, not unlike that which accompanies the earlier stages of sexual intercourse. Not a few patients experience what they call a "dropping sensation," as if the fluid fell from the prostate gland into the urethra. Other anomalous symptoms often present themselves, such as a feeling of weight and fatigue in the region of the prostate, the anus and rectum, or along the perineum, with perhaps more or less uneasiness in voiding urine, and a frequent desire to empty the bladder; some persons are troubled with morbid erections, and their sleep is interrupted with lascivious dreams.

It is astonishing how much the patient's mind suffers in this affection. The discharge, even if ever so insignificant, occasions him the greatest possible disquietude; for at one time he imagines it is a source of much bodily debility, or that it is productive of weakness or soreness in the dorso-lumbar region, especially if these symptoms happen to co-exist; at another, that he is about to become impotent, under the delusive idea that the flow is one of a seminal character; an idea not unfrequently haunts him day and night, and from which hardly anything can, perhaps, even temporarily, divert his attention. His mind, in short, is poisoned, and the consequence is that he is incessantly engaged in trying to obtain relief, running from one practitioner to another, distrusting all, and affording none an opportunity of doing him any good. In the worst forms of the affection, his business habits are destroyed, he becomes morose and dyspeptic, and he literally spends his time in watching for the discharge which is the source and cause of his terrible suffering.

The affections with which prostatorrhœa may be confounded are the various forms of urethritis, especially gleet or chronic gonorrhœa, discharges of semen, and chronic inflammation of the bladder.

From urethritis, whether common or specific, it is generally easily distinguished by the history of the case, the nature of the discharge, and the attendant local phenomena. In most cases the affection comes on gradually, not suddenly, as in gonorrhœa or simple inflammation, and without impure connection; the discharge is white or grayish, translucent and ropy, not purulent, opaque, and yellowish; and there is ordinarily no burning or scalding in micturition. Moreover, there is seldom any evidence of inflammation in the urethra or penis. In gleet or chronic urethritis the signs of distinction are sometimes more difficult; but even here a satisfactory conclusion may generally be reached by a careful consideration of the history of the case, and a proper exam-

ination of the discharge, which is nearly always more or less puriform, as well as more abundant than in prostatorrhœa. When the discharge of the urethra is kept up by the presence of a stricture, the diagnosis can be determined only by a thorough exploration with the bougie.

Very many patients confound this discharge with a flow of semen; an idea in which they are often encouraged by their attendants, in consequence of their ignorance of the nature of the affection. Much has been said and written respecting diurnal spermatic emissions; but, according to my experience, these discharges are chiefly of a prostatic character, the fluid being forced out of its appropriate receptacles into the urethra, along which it is presently discharged. This delusion will be more likely to take hold of the mind if the escape of the fluid be accompanied by a sort of pleasurable sensation somewhat similar to that which follows a feeble emission. Persons affected with prostatorrhœa will often tell us that they have quite a number of such evacuations—perhaps as many as six or eight—during the twenty-four hours, especially if they are troubled with disease of the ano-rectal region, leading to frequent visits to the water closet, or addicted to the pleasures of the table, or to inordinate sexual intercourse, eventuating in general and local debility. Should the history of the case fail to afford the requisite light, it may be promptly supplied by a microscopic examination of the suspected fluid, semen always revealing distinct spermatozoa, whereas the prostatic and urethral secretions never afford any such indications. This will be the case whether the discharge be taken fresh from the orifice of the urethra, or from the stiffened spots left upon the patient's linen.

The characteristic symptom of cystorrhœa, or chronic inflammation of the bladder, is an inordinate secretion of mucus, associated in nearly all cases with an altered condition of urine, frequent and difficult micturition, pain in the region of the affected organ, as well as in the surrounding parts, and more or less constitutional disturbance. In prostatorrhœa there may be also more or less uneasiness low down in the pelvis, with trouble in voiding urine, especially where the prostate is much enlarged, so as to cause constant vesical irritation; but the two disorders are so widely different as to render it impossible to confound them.

The *pathology* of this affection consists in some disorder of the prostate gland, especially of its follicular apparatus, leading to an inordinate secretion of its peculiar fluid, and to a discharge of this fluid along the urethra, at longer or shorter intervals, and in greater or less quantity. That this disorder is, at times, of a real inflammatory character, would seem extremely probable from the nature of the concomitant phenomena, and also from the fact that this organ is frequently, if indeed not generally, found to be

more or less enlarged and indurated. Nevertheless there are cases, and these are by no means uncommon, in which it is, to all appearance, either entirely healthy, or so nearly so as to render it impracticable, by the most careful exploration, to discover any departure from the normal standard. The discharge under such circumstances seems to be the result solely of a heightened functional activity, probably connected with, if not directly dependent upon, disorder of the seminal vesicles, the urethra, neck of the bladder, or recto-anal structures; in other words, upon reflected irritation, or, as our professional forefathers would have denominated it, sympathetic disturbance.

The *prognosis* of prostatorrhœa is generally favorable, for it does not, in itself, present anything grave, being, as just stated, not a disease, but merely a symptom of disease, usually slight, and therefore easily removable. Its obstinacy, however, is often very great, and hence the surgeon should always be guarded in the expression of his opinion respecting a rapid cure. When the mind deeply sympathizes with the local affection, as is so frequently the case, especially in young men of a nervous, irritable temperament, there is no disease which, according to my experience, is more difficult of management, or more likely to result in vexation or disappointment.

In the *treatment* of this affection, one of the first and most important objects is to enquire into the nature of the exciting cause, and, if possible, to remove it. To set about it in any other way would be the climax of absurdity; for here, as every where else, our therapeutic measures must be based upon a rational pathology, or a full appreciation of the nature and seat of the disease. The points which should more especially claim attention, are—first, the condition of the prostate and its associate organs; and, secondly, the habits and state of health of the patient.

The first of these indications is best fulfilled by a thorough exploration of the genito-urinary apparatus and of the anus and rectum. For this purpose a catheter is employed with a view of ascertaining the condition of the urethra, the prostate, and the bladder, aided by the finger in the bowel, previously emptied by an enema. In this manner the surgeon becomes at once apprised of the existence or non-existence of stricture of the urethra, and of the presence or absence of morbid sensibility of its mucous membrane, the size and consistence of the prostate, and the state of the urinary reservoir, particularly as to whether there is inflammation, stone, hypertrophy, or other lesion. The finger in the rectum will be of great service, not only in detecting disease in the prostate and bladder, but also in this tube itself and in the anus. Indeed, without its aid no exploration of these organs could be at all satisfactory. If disease of the seminal vesicles exist, it will

usually be evinced by tenderness on pressure through the wall of the bowel, provided the finger is sufficiently long, or the prostate is not too voluminous.

The habits of the patient should be particularly inquired into. In many of this class they are decidedly lascivious, or marked by excessive sexual indulgence, either naturally or in the form of masturbation, the prostate gland, seminal vesicles, and adjoining structures being thus kept in a state of continual excitement highly favorable to the production of prostatorrhœa. The nature of the patient's diet, his temperament, the state of his health, and his mode of life as it regards sleep and exercise, both of mind and body, also deserve especial consideration.

Having ascertained the above facts, or, in other words, having made himself perfectly familiar with the local and general condition of the patient, the surgeon will be able, in most cases, to institute something like a rational mode of treatment. This should be directed, as a general rule, partly to the system at large, partly to the suffering structures. In many cases the patient is weak, or deficient in muscular and digestive power, indicating a necessity for tonics, as iron and quinine, a nutritious diet, with a glass of generous wine, and gentle exercise in the open air, either on foot or in an easy carriage; riding on horseback being scrupulously avoided, as likely to keep up undue excitement in the parts. One of the best preparations of iron is the tincture of chloride, in union with tincture of *nux vomica*, in the proportion of twenty drops of the former to ten of the latter, four times a day. If the patient be plethoric, he may use with great advantage small doses of tartar emetic in the form of the antimonial and saline mixture, care being taken not to nauseate. In either case, it is of paramount importance to correct the secretions and to maintain a soluble condition of the bowels. Drastic purgatives are of course avoided, as they would only tend to perpetuate the mischief. Unless the patient is actually debilitated, he should rigorously abstain from condiments and high-seasoned dishes.

Among the most important remedies are—first, moderate sexual indulgence, as a means of allaying undue excitement of the prostate and its associate organs; secondly, cooling and anodyne injections, or weak solutions of nitrate of silver and laudanum, or, what I generally prefer, Goulard's extract and wine of opium, in the proportion of from one to two drachms of each to ten ounces of water, thrown up forcibly with a large syringe three times a day, and retained three or four minutes in the passage. In obstinate cases, cauterization of the prostatic portion of the urethra, or even of the entire length of this tube, may be necessary, the operation being repeated once a week. The cold-hip bath should be used twice in the twenty-four hours; the lower bowel should be kept cool and empty; and, if the disease does not gradually yield, leeches should be applied to the perineum and around the anus.

Such, in a few words, is a brief outline of the treatment which I have found most efficacious in this affection. Whatever plan may be employed, perseverance and an occasional change of prescription are indispensable to success. When there is deep mental involvement, hardly anything will effect a cure ; or, more correctly speaking, it is almost impossible to induce the patient to believe that he is well, or that nothing serious is the matter with him. Under such circumstances, our chief dependence must be upon traveling and an entire change of scene and occupation. If the patient be single, matrimony should be enjoined.—*Transactions of the Medical Society of the State of Pennsylvania, Ibid.*

PART IV.

E D I T O R I A L .

OUR SUBSCRIPTION LIST.

Since the commencement of the present volume, in spite of the hard times, and the unsettled state of public affairs, very many additions have been made to our list of subscribers, and the number is constantly on the increase. Still, we have not yet attained one-fourth the circulation which we desire, and which we ought to have, and we therefore beg our friends not to relax in their efforts ; but, taking courage from past success, to press forward in the good work in which they have been so generously engaged.

We would remind new subscribers, that our terms are "in advance," and that in order to avail themselves of the minimum price, they should remit without delay the price of subscription. Those who are in arrears for former years, will confer a very special favor by promptly paying up, and thus save us the disagreeable necessity of again reminding them of their delinquency. We regret to say that the two first numbers of the present volume are nearly exhausted.

MISSOURI MEDICAL COLLEGE.

At the Annual Commencement of the Missouri Medical College, held in Mercantile Library Hall, Feb. 28th, 1861, the degree of

M.D. was conferred by the Dean of the Faculty on the following gentlemen, after which the usual address was delivered by Prof. Paddock:

Kentucky—Francis P. Adams, Graves co.

Missouri—David L. Bassett, St. Louis co.; Joel H. Blake, Cedar co.; Howard A. Cooper, St. Louis co.; Wm. C. Day, Texas co.; John M. Dunn, Dade co.; Boyle L. Ellett, Franklin co.; Joel H. Farmer, St. François co.; Adolphus Greene, Chariton co.; Zachariah I. Johnston, Monroe co.; Francis M. Johnson, Platte co.; Preston Lyle, St. Louis co.; Wm. A. Ruso, Johnson co.; Alpheus Rains, Lewis co.; Pulaski Smith, St. Louis co.; V. N. C. Stephens, St. Clair co.; D. W. Vowles, Marion co.; Thomas W. West, St. Louis co.; John L. Whipple, Lawrence county.

Illinois—John T. Bradbury, Brown co.; Leonidas Brockman, Brown co.; Charles H. Brookings, Perry co.; Stephen R. Gay, Pike co.; George H. Knapp, Jersey co.; Wm. H. D. Noyes, Pike co.; Hugh Smith, Sangamo co.

Tennessee—Hartwell Stratton, Shelby co.

Ad Eundem Degree was conferred on Dr. A. J. Stoner of Brown co., Illinois; and honorary degrees on Dr. Charles M. Cornell of Sacramento, California, and Dr. Wm. Yost of Greenville, Kentucky.

RESIGNATION.

On the incoming of the present sectional administration, Dr. McPheeters, one of the editors of this journal, promptly resigned the post of Physician and Surgeon to the U. S. Marine Hospital at this place, a position which he has filled for nearly four years and a half. He is succeeded by Dr. Hammer.

AN ARTICLE FROM A DISTINGUISHED FOREIGN SOURCE.

Through the kindness of Dr. S. Pollak, now in Europe, we have received an original memoir, of considerable length, on "Facial Neuralgia," illustrated by a case, by Dr. Costanzo Maz-

zori of Rome, Italy. This article came to hand too late for the present issue, but it will appear in our next number, and we have no doubt but that it will prove highly interesting to our readers, coming as it does from so distinguished a source.

AMERICAN MEDICAL ASSOCIATION.

The fourteenth annual meeting of the American Medical Association will be held in Metropolitan Hall, city of Chicago, commencing on the first Tuesday in June next. Each regularly organized Medical Society is entitled to send one delegate for every ten of its members; and each Medical College is entitled to two delegates. It is desired that the names of delegates should be forwarded to the undersigned as soon after their appointment as practicable.

H. A. JOHNSON, Assist. Secretary.

[We insert this official notice as we find it, though from the present state of the country, we think it extremely doubtful whether the Association will assemble at all at the time mentioned. Indeed we think it altogether desirable that the meeting should be postponed for one year. Engaged as we unfortunately are at present, and from all appearances are likely to be for some time to come, in a civil war, we doubt whether any number of physicians will be disposed to quit their homes for any ordinary purpose whatever.]

SAFETY OF ETHER AS AN ANÆSTHETIC.

The following circular explains itself. If any of our readers are in possession of facts bearing on this subject, they will do well to communicate them to some one of the committee:

Boston, February, 1861.

The question of the entire immunity from danger which is claimed for anæsthesia produced by ether, being still under discussion, the Boston Society for Medical Improvement has appointed the undersigned a committee "to investigate the alleged deaths from the inhalation of *sulphuric ether*, and to report thereon."

They would therefore request the medical profession, or any person into whose hands this may fall, to communicate to either of them such cases, coming within their own observation, as shall serve to this end; giving the place, time, and circumstances of their occurrence, with the mode of inhalation adopted, and, especially, information in regard to the following points:

1st. The kind of ether used, whether pure sulphuric ether, chloric ether, or ether combined with chloroform.

2d. The period after inhalation at which death occurred; also, any other facts which may enable them to form an opinion on the subject of their investigations.

Committee—Richard M. Hodges, M.D., George Hayward, M.D., Solomon D. Townsend, M.D., Charles T. Jackson, M.D., J. Baxter Upham, M.D.

ILLINOIS STATE MEDICAL SOCIETY.

For the benefit of our Illinois readers, we insert the following order of exercises to be observed at the next meeting of their State Medical Society:

ORDER OF ARRANGEMENTS for the Illinois State Medical Society, meeting at Jacksonville, commencing Tuesday, May 7th, 1861, in the Old School Presbyterian Church.

TUESDAY.

A. M. 10 o'clock—Business.

P. M.—Business.

4 o'clock—Visit the Institution for the Blind.

WEDNESDAY.

A. M.—Business.

P. M. 2 o'clock—Dine at the Insane Hospital.

8 o'clock—President Chambers' Address, at Strawn's Hall.

THURSDAY.

A. M. 8-10—Visit the Institution for the Deaf and Dumb.

10½ to 1—Business.

P. M.—Business.

Committee of Arrangements.—D. Prince, H. Jones, O. M. Long, A. McFarland and N. English.

CLASSIFICATION AND DIAGNOSIS OF TUMORS.

We devote a considerable space in the present number to a translation from the German of an exceedingly able and interesting article, by Dr. Billroth, on the above subject, and to which we call the attention of our readers. This article was first published in 1869, in the "Deutsche Klinik," a German Medical Gazette of wide circulation; a large edition of separate copies was also issued, which in a few weeks was completely exhausted.

The author, well known previously by many extensive investigations in pathological histology, and able papers on various subjects, was at that time first assistant surgeon to the R. Clinical Institute at Berlin, in charge of Prof. Langenbeck, and has since been appointed Professor of Surgery in the University of Zurich. His article on tumors has evidently found great favor with the medical public of Europe, and it will, we doubt not, be regarded by surgeons everywhere as a standard authority on the subject. The translation is by Dr. G. Baumgarten of this city, and will be concluded in our next number.

MEDICAL MISCELLANY.

Long Incubation of the Vaccine Virus.—A correspondent of the Medical and Surgical Reporter writes the following to the editor of that journal: "One year and a half ago, I vaccinated a little grandchild of mine, six months old. It did not work, and the three incisions made rapidly healed up. She has never been vaccinated since; but about five months ago, all three places became sore, and she had the true vaccine pock. Her father vaccinated several children from her, and it worked well in every case. I saw the child last week, and found the well-marked, characteristic cicatrices."

Medical College of Texas.—We have received the first annual circular of this new Medical College, chartered at the last meeting of the Texas Legislature, and located at Houston in that State. A full corps of professors are announced, and the institution proposes to go into operation next fall. We see no reason why Texas should not have a Medical College, as it is the order of the day to multiply such institutions.

Treatment of Trichiasis.—Dr. Anagnostakis of Athens, says the the London Lancet, proposes the following method of curling upwards the eyelashes, and consequent relief of this troublesome affection. He uses for this purpose a pair of minute curling tongs gently heated, and covers the globe of the eye with damp paper. This innocent manœuvre is repeated from time to time, until the lashes take their normal direction.

Recovery after the removal of a large piece of Intestine.—The following is from a Columbia (S. C.) paper: On the 4th of January, Cornelius Toohey, in a fit of *mania-a-potu*, made two incisions in his abdomen, and cut off, with his knife, two pieces, each about one foot in length, of the smaller intestine. He was taken in charge by Dr. J. McF. Gaston, who was assisted by Dr. W. C. Freeman. The haggled ends were clipped off, so that near three feet of the intestine were taken out. The two ends were brought together and sewed with silver wire. The two incisions were opened into one by the surgeon, which, after the operation upon the intestine, was sewed up also, and the patient carried to the poorhouse. Little or no hope was entertained of his recovery, but, to the astonishment of all cognizant with the case, he did survive, and on the 28th of February walked from the poorhouse to the South Carolina Railroad depot, and went off a well man.

Obituary Record.—Died in Philadelphia, March 4th, 1861, Thomas Harris, M.D., U. S. N., in the 78th year of his age. Dr. Harris was for many years chief of the Bureau of Medicine and Surgery in the U. S. Navy. He was a most accomplished and skillful practitioner and high-minded gentleman, and enjoyed the respect and confidence of a very large circle of friends. Also, in Philadelphia, March 3d, Dr. William Harris, brother of the above, aged 68.

Secretion of Milk from the right Axilla.—The Berkshire Med. Journal quotes the following from the London Lancet: A woman, aged thirty-seven, bore her seventh child, and on the night of her confinement observed a swelling in the right axilla, as large as half an English walnut. It grew no larger, but became harder, and there was pain down to the elbow. Nearly four weeks later it began to discharge milk (as proved by the microscope) from a single orifice, hardly larger than a sweat-duct. No pus was found in the fluid discharged, but it was quite as rich in cream as that from the mammæ. Seven months later it was still the same, discharging enough to keep her linen moist, more especially when using the arm. No such phenomenon had attended her previous lactations.

Resignation of Prof. Meigs.—The resignation of Dr. Charles D. Meigs, long the popular and able Prof. of Obstetrics in the Jefferson Medical College, Phil., is announced at the close of the last session of the college. He retires on account of advanced age and infirmity. His successor has not yet been appointed. Thus, one by one, the veterans of the profession are laid aside—but Prof. Meigs will long be held in grateful remembrance on account of his valuable teachings and writings. At the close of his last course of lectures, which closes his career as a teacher, the class presented him with a handsome portrait of himself, as a mark of their respect.

Podophyllen and Leptandrin as Alteratives.—The North Am. Med. Cher. Review says: Dr. R. E. Haughten, of Indiana, states that, in order to save his patients from the severe effects of calomel, he resolved to try substitutes milder in their operation, but equally efficacious as alteratives. He found that podophyllin (the active principle of podophyllum peltatum, or May apple), combined with leptandrin (the active principle of the leptandria Virginica), in the proportion of half a grain of the former to three or four grains of the latter, formed a very good and efficient alterative, producing no nausea, pain, or other unpleasant symptom. It is added that the leptandrin is an excellent alterative alone, producing augmented biliary secretion, and thus becoming a valuable adjunct to other remedies in the treatment of disease.

Liberal Prize.—The Emperor of France, it is said, has contributed ten thousand francs towards a prize, which the Academy of Science proposes offering for the best essay on the question of the "Reproduction of bone when broken, or crushed by accident, &c."

The Michigan University and Homœopathy again.—The Legislature of Michigan at its last session passed an act requiring the establishing of a chair of Homœopathy in the Medical Department of the State University at Ann Arbor. This is just what might have been expected from the Michigan Legislature, all abolition as it is. Men whose minds are so thoroughly imbued with one of the miserable isms of the day, are apt, nay, are almost certain to run into all other absurdities and tom fooleries of the age. But fortunately the Legislature are powerless in the matter—the constitution of the State having placed the University in all its departments exclusively under the control of the Board of Regents. This same thing was attempted in the same way several years ago, but the Board of Regents refused to comply with the mandate of the Legislature, having satisfied themselves that homœopathy is an arrant cheat and humbug—and so we hope they will do again.

Gelsemin in Spermatorrhæa.—A physician writes as follows to the Am. Journal of Indigenous Materia Medica: About four years ago, I was badly afflicted with Spermatorrhæa, and had nearly despaired of finding relief, for I had tried every plan of treatment suggested by my medical friends, under whose care I had placed myself. You recollect my conversation with you, and your advice to propose to my friends the use of gelsemin. They acceded to your suggestion; I had taken but four doses before the emissions ceased, and by continuing the medicine my appetite returned, the peculiar cadaverous hue of my face yielded to a more healthy color, and subsequent years have proved, I was cured of my disease. As this is a difficult disease to cure, I mention this that others may try its virtues.

Sight and Reason restored by the operation for Cataract.—The London Lancet states that M. Bouisson, Professor at Montpellier, reported to the Academy of Medicine the case of an insane patient, aged fifty years, who was brought to the hospital laboring under complete dementia and double lenticular Cataract. Couching was resorted to for both eyes. Ten days after the operation the man said "I can see," which was the first sensible word he had spoken. As the sight improved he became more manageable, until six weeks after his entry he was discharged fully capable of earning his own livelihood. In reasoning on the case, the Professor remarks: "sensation stimulated the mind as electricity stimulates nervous action, the patient being at the time favorably situated for such impression." The dementia was probably not deeply rooted, and the organ of sight being that which affords the most vivid sensations, the results have been extremely beneficial as to the patient's state of mind.

Tannin Ointment in Vaginitis.—Dr. Foucher recommends that in cases of simple vaginitis, or superficial inflammation of the neck of the uterus, an excellent local application is an ointment composed of tannin and lard. This may be smeared over a piece of wadding and introduced through a speculum, a thread being attached to it, so that the patient can remove it herself. This does not supersede the use of constitutional remedies as well.

Belladonna in incontinence of Urine.—The Journal of Materia Medica quotes, from Dr. Hughes, the case of a boy of fourteen, in which he gave the one third of a grain of extract of Belladonna twice a day in cinnamon water. The cause was supposed to depend on weakness, or paralysis of the sphincter of the bladder. Belladonna here acts as a tonic to the ganglionic system, and a depressant to the cerebro-spinal system. In like cases we have derived benefit from an infusion of uva ursi.

Position a Remedy for Stertorous Breathing.—The Cincinnati Lancet & Observer states that Mr. Bowels, after repeated trials, assures the profession that stertor in apoplexy, etc., is immediately relieved by turning the patient well on his side, so that the paralysed tongue and velum palati will fall forward and the mucus drain away. Very soon, also, the phenomenon of partial suffocation accompanying the stertor will disappear.

Laudanum an Antidote to Stramonium Poison.—Dr. Emory of Roanoke, Alabama, publishes in the Southern Med. & Surg. Jour. the history of a well-marked case of poisoning by stramonium seed, in the person of a negro child aged five years—in which laudanum in doses of from three to eight drops, repeated, acted as a complete antidote, mitigating all the aggravated symptoms. An emetic and purgative were also administered.

Iodide of Ammonia.—According to the Cincinnati Lancet & Observer, this drug is reputed valuable in all cases where the iodide of potassium is indicated, particularly in constitutional syphilis. The advantages claimed for it are, its greater acceptability to the stomach; its effects are more rapidly produced, and the quantity required is less. From two to sixteen grains given during the day is all that is required. We are not disposed to find fault with the iodide of pot., which in our hands has proved itself in hundreds of cases to be a most invaluable remedy; and we are willing to give the new compound a fair trial; and if what is claimed for it be true, so much the better for poor suffering humanity.

Neuralgia.—The Pacific Journal has the following: Twenty grains of Keith's lupulen, and ten grains of prussiate of iron, divided into two powders, and one taken night and morning, have cured a large number of cases of this disease.

The Louisville Medical News.—We regret to announce the discontinuance of our Louisville cotemporary for lack of due support. This is a reproach to the profession of Kentucky under which they should not suffer themselves to remain. The great State of Kentucky should at least be able to support, well, one good journal.

Another Suspension.—The Georgia Medical and Surgical Encyclopedia, after an existence of eight months, is compelled to suspend for want of patronage sufficient to sustain the enterprise. *Sic transit gloria mundi.*

Worthlessness of Homœopathy.—The American Medical Times of New York has the following: "The Homœopathic College of this city recently held its commencement, on which occasion the President gave the following significant charge to the graduates. We need no other proof of the utter worthlessness of the system which these young men are now deemed qualified to practice:

"You need not stick alone to Homœopathy; if that will not cure, try Allopathy. If Allopathy fails, try Hydropathy; and if you are not then successful, adopt Spiritualism, or any other curative means that may be at hand."

It is deeply humiliating to add that this Institution has a charter from the State, and by its diploma places its graduates upon the same legal footing as those of our best schools."

Pathognomonic Sign of Scarlatina.—Dr. Bouchut lays down the following simple sign by which scarlet fever may be distinguished from measles, erythema, erysipelas, or any other like disease. Pressure made by drawing the back of the nail of the finger, or any other hard smooth substance over the part of the skin in which the eruption exists will leave a *white stripe* which will last for one or two minutes. Figures may thus be traced he says on the skin, the lines of which are conspicuous for their whiteness. This is not the case in other eruptive diseases.

Poisoning by the Internal use of Chloroform.—The Boston Journal says: "A case is related in the American Medical Times, in which one ounce of chloroform was swallowed by a girl of 18, for the purpose of self-destruction. She fell heavily on the floor immediately after taking it. In twenty minutes, Dr. Finnel forced down the throat an ounce of powdered ipecac, mixed with warm water. In a few minutes she vomited, then became gradually comatose, with stertorous breathing, feeble and rapid pulse, and contracted pupils. Mustard was applied to the extremities, cold water dashed in the face, with flagellation at short intervals. Consciousness began to return in half an hour, and in three hours she had entirely recovered.

Fracture of the Patella successfully treated by Malgaigne's Hooks.—Dr. Packard of Philadelphia reports, in the American Journal of Med. Sciences, a successful case of transverse fracture of the patella treated by the application of Malgaigne's hooks. A perfect bony union took place after the hooks had been applied thirty-one days, the patient suffering comparatively little inconvenience from the application of hooks. This is probably the first successful case of the kind which has been reported in this country.

THE ST. LOUIS
MEDICAL AND SURGICAL JOURNAL.

VOL. XIX.

JULY, 1861.

No. 4.

PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

A Memoir on Facial Neuralgia, illustrated by a case affecting the Sub-orbital Nerve. Cured by Excision—with Observations thereon. By Dr. COSTANZO MAZZONI of Rome, Italy.

It may seem, at first sight, to many practitioners an idle and aimless task to select in our times, as a subject for an original paper, a malady described with such power and effect, and in such truthful colors, by modern writers, especially by Valleix, Martinet, Wencourt, and others. It may seem vain to adduce an exposition of a curative method proposed and adopted even by the surgeons of the last century.*

And, in truth, if in perusing the pages of the great treatise, writers on neuralgia—if on examining the results obtained by the ablest surgeons by means of the excision of the nervous

* In 1768 Viellard undertook to discuss before the Medical Faculty of Paris, a thesis conceived as follows: "Utrum in fortioribus capitis et faciei doloribus aliquid producere possit sectio ramorum quinti Paris."

branches attacked by the nervous affection, I had discovered a concurrence of opinion regarding the character, nature, and causes of the neuralgia—an unanimous consent regarding the excision of the nerve affected in cases of rebellious and obstinate neuralgia, and a successful result at least in the majority of cases; I should not have thrown away to no purpose that time which would have been more profitably employed in other researches. But to whatever department of medico-surgical lore I direct my attention, even though it be a subject of the clearest and simplest kind, I everywhere encounter discrepancies of opinion and contradictory decisions, sustained on both sides by men of the first distinction and talent. Hence it is, that at every step, at every turn, no matter on what subject, we are ever constrained to make further investigations, fresh observations and fresh experiments; and where we deem that we have before us a subject which, in our estimation, is clear and demonstrably evident, and which the mind skims over with assured glances, perhaps at that very moment our quick and erring mind hovers over what is false; for sad experience has too often proved that beneath the veil of the greatest clearness and simplicity the false and absurd lie concealed. The diathetic doctrine, which has for some time back so bewitched the minds of the faculty, and quite infected, fascinated and drawn into error the medical republic, under the fallacious and phantom shape of clearness, simplicity and easy application, revealed at bottom a whimsical hypothesis and an absurd principle. And, therefore, as Bonnet justly observes, it is our present destiny to behold only the outer surface of creatures, to clamber from fact to fact, to analyze and compare these facts, and deduce therefrom a few results, more or less immediate, (in this consists all our science,) so that at every turn we feel the urgent necessity of renewed observations, of repeated experiments the better to consolidate the principles adopted, and assay how the new principles will correspond with facts. To come more closely to the purpose, we shall adduce a striking example drawn from our present subject. It must be stated that previous to the admirable physiological researches of Müller, Tonget, Chas. Bell and Berard, no one entertained a doubt but that the facial nerve was the seat of that painful and insufferable affection of the face, which André, a surgeon of Versailles, in 1756, denomi-

nated *tic-douloureux*, and which Fothergill, in 1776, styled the *prosopalgy*.*

If, however, now-a-days, (thanks to the rapid progress of physiological studies, a never failing source of substantial changes and modifications in pathological doctrines,) setting aside the appellation of neuralgia of the facial nerve, it is universally known that under the denomination of the *tic-douloureux* and of *prosopalgy*, is meant the painful affection of the various branches of the * * * * † there does not exist a process, and renewal of this affection—as especially all do not too highly approve of the too immoderate application of the electric theories instituted to explain the spontaneous paroxysms and rapid cessation of the pain—there is less accord on the curative method, and more particularly on the last expedient of section and excision, which, if productive of stupendous results in the hands of Velpeau, Berard, G. Roux and Bonnet, did not meet the approval of the immortal Antonio Scarpa, and proved successful in the hands of Delpech Klein of Stutgard.

As for the rest, the reader will perceive from the sequel of the account of our case, of what profitable considerations it may be the source.

At the close of his forty-fourth year, in the most prosperous state of health, Guiseppe Cornia, by trade a blacksmith, of a sangui-bilious temperament and robust frame, about five years since, one summer morning while rubbing his face, suddenly felt in the middle of the furrow which separates the bulge of the nose

* Painful affection of the face.

† How much soever Bischoff, Barthold, and Gaedechens, and even F. Belingeri himself, have essayed, by means of anatomy, to uphold the untenable doctrine of the sensibility proper to the nerve of the seventh pair; the splendid practical results of Magendie, Bleecker, Tund, Tonget, Berard and Bell have evidently proved the insensibility of the seventh pair, ascribing to the ramifications of the inferior muscular and great occipital nerve (Berard) which associate with the ramifications of facial neuralgia, which from their following precisely the course of the facial, seemed even in some measure to weaken the doctrine of Bell, which excludes from the neuralgia the possibility of having its seat in the seventh pair, designed only for the movements of the face, and destitute of sensibility. "Aucun fait," (observes Valleix on this subject) que la néuralgie ait réellement existé dans le nerf moteur de la face. Les cas qu'on a donnés comme exemples de néuralgie du nerf facial, appartiennent presque tous à la néuralgie cervico-occipitale. (Traité des Név. p. 37.)

from the right cheek, and precisely corresponding with the sub-orbital foramen, an indistinct, slight and transient pain. For three consecutive summer seasons, Cornia, whenever he rubbed his face for motives of cleanliness, invariably felt the usual pain always constant to the same region, but it disappeared at the approach of autumn. The case, however, was different in the beginning of the summer of 1858; for one morning he was suddenly seized in the said region by a most acute darting pain, but transient as before, which at an instant disappeared with the quickness of lightning, and returned at intervals of greater or less duration.* This pain, limited in its first period to the point whence the superior maxillary nerve issues from the infra-orbital cavity, quickly radiates at each return to the corresponding upper lip and to the under eye-lid. The spasms excited by the intense pain, occasioned by the law of reflex motion, produce a convulsive agitation and contraction of the motor muscles of the upper lip and of the bulge of the nose, as also a swelling and redness of the cheek. The pricking and darting pains, rarer and less acute, become more frequent and intense with each return of the attack. So that, if at first the acute and darting pains appeared only at distant intervals, during which the patient endured no kind of pain, there now remained in the centre of the cheek, at the point of emergence of the infra-orbital nerve, a permanent, contusive pain, sometimes inducing a sensation of stupor, heaviness, and a light straining—at others, a simple pricking. The pressure made with the tip of the finger on this very circumscribed point, exasperated the persisting gravitate pain, and rather generally awakened the darting pains, the spasmodic strains and the stinging sensation. The summer passed away, but this year the patient awaited in vain the usual cessation of his sufferings, now rendered quite virulent and torturing, so that in the autumn and ensuing winter the neuralgic access returned, at irregular intervals, more acute and painful than before. During a given time, the duration of the paroxysm did not exceed two or three hours; and while this lasted—the spasms, likened by our patient now to strainings, pricking, and stinging, and now to violent hot sores—re-

* Cotta has described in graphic and energetic terms the rapid development of the acute stinging pains in the neuralgia, where he designates them as *flushes of pain* (*Fulgura doloris*).

curred at every quarter of an hour, or half an hour, the usual graviture contusive pain still continuing, in the intervals, not only in correspondence with the sub-orbital cavity, but also in the midst of the under eyelid, and a circumscribed point of the upper lip; that is, under the corresponding bulge of the nose, exactly where the common elevator of the bulge of the nose and upper lip confounds and mingles its fibres with those of the orbicular of the lips.

In the winter of 1819, the neuralgia became virulent, the intermitting pain under the usual form of laceration and puncture was frequently excited, not only spontaneously without the slightest cause, but, moreover, very frequently returned quite suddenly in consequence of mastication, a yawn, a sneeze, or a word spoken, so that those hours which for the generality of mortals are a time of solace and repose, were for Cornia most painful and troublesome. A series, however, of pains and sufferings, unusually severe, awaited our patient in the spring and summer. The accesses of neuralgia increased in number, in violence, in extent. If at first between one paroxysm and another there intervened an interval, a respite of four or five days, of a week, and sometimes even of some months, they now manifested themselves daily, nay, several times a day, and at every paroxysm the darting pains were renewed at intervals so close to each other, that sometimes they occurred every minute. As the violence and frequency of the attacks increased, so likewise did the extent of the neuralgia; for the stinging pains and tortures ascended the right nasal bulge, radiated to the root of the nose, and then to the whole corresponding eyebrow.

I was called on the 1st of July last, for the first time, to visit Cornia. He gave me an exact description of the beginning and course of his complaint, as persons are wont to do who have perceived their malady gradually develop and increase. The intervals and respites were at this time very rare and brief, and the accesses followed close on each other, so that at first sight, on account of the apparent continuity of the pain, it might nearly be mistaken for * * * *. The patient pointed out four spots as the places whence stinging pains originated and circulated, three of which I have noted above: the fourth corresponded to the lateral and superior part of the right

nostril, a little below the place of insertion of the elevator muscle common to the bulge of the nose and of the upper lip. In fact, on strongly pressing the said points with the tip of the finger (where, according to the statement of the patient, there always remained after the cessation of the spasms an irksome and continuous pain) the acute stinging pains are instantly felt. During the accesses a considerable swelling, with redness, was formed and a burning heat felt on the whole affected side of the face, accompanied by convulsions and spasms of the muscles, photophobia, pungent and scalding lacrimation, a swelling of the veins, redness of the eye, which in the last period of the neuralgia was even not unfrequently attacked by spasm (ophthalmadialgia). No pain, however, ever arose in the roof of the mouth, the dental arches, the * * * *, temples, or other places. Nor did the neuralgia on its appearing ever assume or manifest a real periodicity, that is, a determined order of periods in its manifestations. As for the rest, during all these excessive pains and sufferances, the pulse scarcely beat quick, the breathing was calm, and the general nutrition in nowise deteriorated.

In tracing out the exciting cause of the malady, it was not difficult to discover that it had been exposure to moist cold—a most potent cause of every variety of neuralgia; for Cornia often occupied himself by night in the holy and pious duty of taking up in the fields the dead bodies of those luckless peasants whom death often overtakes at a distance from their abodes. When we reflect that our patient had sought aid for five years from almost all the most skilled and accredited physicians and surgeons in Rome, without deriving therefrom the least diminution of his complaint, it may easily be imagined that during this time he must have almost exhausted the whole series of those remedies which the cure for neuralgia can boast: I therefore refrain from particularizing them.

Even the electric puncture which I prescribed had proved unavailing; I therefore determined to have recourse to the last expedient—excision.

Before I adduce the method adopted, I may be permitted to offer a brief topographic sketch of the distribution of the superior maxillary branch, after its emerging from the sub-orbital cavity. The sub-orbital branches constituting the extremity of the mas-

cellar united in a group and reaching the anterior extremity of the infra-orbital canal, diverge from each other at an acute angle, and running out in all directions like so many radii from a common centre, cross and interlace with the corresponding fibres of the facial branch, from which crossing or interweaving is derived that quadrilateral mailed plexus, called from its position the sub-orbital, and from its form *goose's foot*. To discover it, we have only to remove the elevator muscle proper to the upper lip and part also of the common elevator. The sub-orbital branches in consequence of their direction form three divisions, which comprehend the nasal, the superior labial, and the inferior palpebral.

The nasal branches spread out on the back * * *
* * * * of the nasal bulge and on the common
and traversal elevator muscles of the nose. The superior labial
or descending branches ramify in the muscles, the skin and the
* * * * of the upper lip. The inferior palpebral
or ascending branches, which are slender and not numerous, tra-
verse the elevator proper to the upper lip to distribute them-
selves at the skin and at the * * * * of
the under eyelid, at the pyramidal muscle, * * * *
and the lachrymal sac. Among these occurred one worthy of very
particular attention not hitherto considered by any writer on de-
scriptive and topographical anatomy, which, ascending internally
and grazing the inferior and interior fibres of the orbicular of
the eyelids in the neighborhood of the interior angle of the orbit,
proceeds to anastomatize with the supra-tracleator and the exter-
nal nasal.* From this branch, at its origin diverges a lesser,
which, grazing the border of the infra-orbital foramen and bend-
ing back upon itself in the form of a circle, proceeds upwards
externally, and thence interiorly and inferiorly, passes under the
group of labial branches, and spreads out its slender threads to
the fibres of the common elevator and that proper to the upper
lip; it anastomatizes at this point with the superior labial, and
thus serves as a medium of conjunction between the palpebral
and labial branches.

* We here use the word anastomosis in reference to the union of the fila-
ments of the various branches, not to the substantial fusion of the nervous
pulp, as the ancient anatomists pretended.

In the preparation of the sub-orbital plexus, it is extremely difficult to trace out and discover the aforesaid palpebral branch and its ramification; 1st. Because it descends to a great depth and touches the periosteum; 2d. Because, in passing the sub-orbital canal, it diverges, just before emerging, from the other branches composing the group of the superior maxillary; thus separated, it escapes therefrom and diverges from the inferior palpebral or ascending branches.

This palpebral branch, which from its course may be justly designated the palpebro-nasal, is not described or illustrated by any of the ancient or modern writers on descriptive and topographical anatomy. True it is, that Prof. Calori in his anatomical drawings has delineated a slender palpebral branch which ascending towards the interior angle of the orbit anastomizes with a ramification descending from the internal frontal: however, in his corresponding description of it, he does not consider it as a speciality; he ranks it among the palpebral group without assigning it any special name, and has not thought of delineating or noting the secondary ramification which borders on the infra-orbital foramen.* Prof. Sappey, in his treatise on descriptive anatomy, supplies us with a certain trace of the palpebro-nasal nerve, inasmuch as that among the ascending branches of the sub-orbital nerves he detects a branch which anastomizes with the external nasal: "Parmi ces rameaux (rameaux ascendants) il en est qui se porte en dedans et qui va s'anastomoser avec le nasal externe."† He likewise omits giving a description of the secondary ramification which environs the sub-orbital foramen, and gives but a rude delineation of the course taken by the anastomatic palpebral branch: hence, we may suppose that neither he nor Calori were competent to describe precisely the palpebral branch of which we speak, although each of these palpebral branches, which stretch out to the pyramidal muscle of the nose, to the * * * and the lachrymal sac, anastomizes with the ramifications of the external nasal and of the supratrocleator,

TABLE OF THE PLACES AFFECTED.

Sub-Orbital	{ * Point of emergence of the superior maxillary from the sub-orbital cavity.
Tabial Palpebral Nasal.	{ † Points of the peripheric termination. ‡ Point where the superior maxillary anastomizes with the frontal.

the said branch thus forming one of the many, not single, anastomoses of the palpebral with the nasal and frontal branches. And let us admit, with certain sophistical opponents, the above mentioned distinguished anatomists were alone able to trace out the branch in question; yet they must admit with us, that compared with our illustration their slight delineation is so indistinct, so incomplete, as by no means to detract from Dr. — the merit of the discovery and of its application to surgical practice.

On recalling to mind the places affected by the neuralgia in question, it is evident that the constant pain under the orbit in the direction of the first — tooth is confined to the point whence the superior maxillary nerve emerges from the sub-orbital foramen; the others correspond with the points of peripheric termination of its divisions. The pain attached in the last stage of the neuralgia to the superior and lateral part of the nose, susceptible under pressure of awakening the darting pains, confines precisely with the peripheric extremity of that ascending branch which we have more minutely described in our description of the palpebral branches, or more properly it marks the anastomatic point with the ramifications of the interior frontal. †

We shall now proceed to the operative process :

The patient being placed in a horizontal position and subjected to the inhalement of vapors of chloroform, Dr. Mazzoni, assisted by Dr. Tassi and myself, made an incision, which, commencing a few lines from the right bulge of the nose, descended outwards and downwards in an oblique direction to the length of about an inch towards the corresponding —, thus following the natural course of the naso-jugal furrow. Having separated the teguments and turned the facial vein outwards, I, moreover, separated several arterial threads which obstructed my search for the sub-orbital nerve. Thus, after having removed the adipose matter by means of a —, turned inwards the elevator muscle of the lip and directed the canine muscle outwards, I at length discovered and made an incision thereon about four lines in length.

The patient, as if by enchantment; felt himself relieved from the excruciating pains by which he was troubled, and under a pressure, methodically made in the different points where the

† See note on preceding page.

nerve radiated, he experienced a sensation of torpor, except in the ——— of the nose, which still labored under nearly the same affection as before.

This simple fact sufficed to induce me to search out the anastomatic nerve with renewed resolution, a process which required great patience on the part of the patient. In addition to the cut already made, I made a slight incision, which, commencing from the centre of the former, I carried downwards so as to form an inverted *ypsilon*, and after about twenty minutes of patient scrutiny I found the slender nerve, incised it to the breadth of about three lines, whereon the patient was relieved from all his sufferings, even the ——— of the nose being rendered insensible.

The operation was performed at 10 o'clock A. M., on the 9th of July, 1859. The operation was attended by a complete disappearance of the neuralgia; however, a few hours after a series of symptoms set in which for some days kept my mind in a state of inquietude for fear that the patient should expire in consequence of a mere accidental complication sufficient in itself to occasion the death of any patient whatsoever, whether his disease be one which calls for medical or surgical aid, or whether the operation has been or is yet to be performed upon him. We will here give the circumstances in detail.

9 o'clock P. M. Irritation, inquietude, depression of mind, fever, preceded by cold with full and vibrating pulse; ——— a pain in the place where the skin was incised; the tongue covered with a light-yellowish coating; sensation of burning in the stomach. I prescribed a simple iced lemonade, and recommended quiet. The patient had a sleepless night; return of fever towards the ending of night with general perspiration, voiding of a scanty red and sedimentous urine.

10th July, 9 o'clock A. M. The irritation and inquietude continue; the patient complains of a burning sensation at the epigastrium; frequent eructations, nausea, tendency to vomit; vomiturations, certain tendineous ———, moderate fever, yellowness of the bulbous conjunctiva: (———— composed of castor oil, 3 ij, common salt and water of mallows); slight alvine discharge of corrupt bilious matter.

7 o'clock P. M. The ——— and soreness of the wound gain strength; a recurrence of shudderings followed by a burning heat,

herald the increase of fever; efforts to vomit; the swelling and redness of the cheek which underwent the operation not extraordinary; (lemonade as before, repetition of the clyster;) a most unquiet night with insatiable thirst; perspiration towards morning.

July 11th, 10 o'clock A. M. Intense violent fever with an indescribable irritation and moral depression of the patient; tongue covered with a yellowish coating; continued pain at the epigastrium; frequent vomiturations; the wound, however, is in an excellent condition. I detached a pin from the twisted suture, when pus of the best quality dropped thereon, but not so much as was at all proportioned to the violence of the fever; for the wound even commenced to cicatrize in the upper part; (drink as before—the usual clyster—fomentations of camomile on the epigastrium;) slight discharge of bilious matter.

5 o'clock P. M. Accesses of heat alternating with chilliness on the back and by cold in the feet; increase of all the symptoms.

9 o'clock P. M. The patient is in a deplorable condition, while the wound is in an excellent state, and the cicatrization progresses; an inconsiderable quantity of bilious matter accompanies, from time to time, his repeated efforts to vomit; tongue unclean and dry, slightly covered with a subicteric tint; intense burning pain and sensation of heaviness in the stomach; under stomach meteorized; prostration; slight drowsiness, interrupted by frequent sighing; a little sobbing; parched skin; scanty and red urine, * * *, with ocraceous sediment, that is, similar to brickdust. (Castor oil, 3 ji; sulphate of quinine, grs. xxiv; to be taken in various doses as soon as the perspiration sets in.) I withdrew the second pin from the twisted suture. At night copious alvine discharges of offensive bilious matter; a general and most profuse perspiration; he begins to take the sulphate.

12 o'clock, in the morning. A most marked diminution of the fever, with large, expansive and undulating pulse, equable decline in all the symptoms. The bitterness of the mouth, however, still continues—a certain nausea, sense of heaviness and burning in the stomach—although sensibly diminished. (Sulphate of quinine, grs. xii. * * * * .)

7 o'clock P. M. A slight heightening of the fever; a most quiet night; the patient enjoys a long sleep, during which he is covered with profuse perspiration.

18th. Morning. Perfect cessation of all the symptoms; the patient enjoys a great relief; there remains only a slight indisposition of the epigastrium, and a certain griping in the bowels; urine not much inclined to red and almost without sediment. (Sulphate of quinine, grs. xviii.; lemonade.) The cicatrization of the wound progresses; when pressed there flows from the edges a small quantity of plastic lymph.

14th July. The improvement continues; the urine still nearer to the normal state; there still remains a certain griping in the abdomen. (Watery infusion of rhubarb, 3 iij., to be taken in spoonfuls during the day.)

During the ensuing days the patient gradually regained his lost strength, so preyed upon by repeated and violent fits of fever; his appetite also improved; the ninth day after the operation, the wound was completely healed so as to leave scarcely a cicatrix behind; there was no return of the least indisposition; the sensitiveness of his right cheek quite disappeared, and the right side of the upper lip was slightly depressed, an inclination due to the indispensable incision of some buccal filament of the facial nerve designed for the movement of the muscles of the face.

Considerations.—In truth, it is no pleasing task for any one to determine by the excision of the sub-orbital fascia in rebellious prosopalgy, the list of the failures and relapses. Wishing for the sake of brevity to limit myself to a few examples, I shall merely state that Marechal* cut transversely the infra-orbital nerve of a female who for several years had been tormented at irregular intervals by tic douloureux, but he was unsuccessful; for although the patient slept quietly after the operation for six consecutive hours, the neuralgic paroxysms returned as before. In 1776, Louis† communicated to the faculty that he had radically cured a religious, affected with facial neuralgia, by means of incising the sub-orbital nerve; but that religious, not long after the operation, relapsed into his former deplorable state. Sabatier did not prove more successful in the execution of this operation than did Marechal and Louis. Professor Klein of Stutgard‡ frankly confesses his numerous failures, though he of all other surgeons

* Observations inserted in the work by André "Sur les maladies de l'urètre."

† Gazette de Santé, n. 33.

‡ Journal de Gruf et Walther, t. III., 1822.

made the most experiments in this direction. "After the publication," says he, "of the two observations inserted in the journal of Siebold, entitled the *Chirone*, in the year 1806, I performed the operation four times more, and the success which accompanied it was only a temporary relief to the patients, after which the facial neuralgia returned with its usual violence." And we see that Prof. Delpech expresses himself on this subject with the same candor as Klein*: "On a souvent entrepris la section du nerf sous-orbitaire, cette operation n'a pres presq' jamais en que des succes passagères."

In all the arts, and more especially in medicine and surgery, it often happens that in a minute and diligent analysis of facts we discern, if not all, at least the principal reasons of our misfailures; hence it is that we not unfrequently attribute to the teachings of art the defects of the artificer. We often behold the rejection of some remedy or some operative method in consequence of the incipient failures which attend them; but they are afterwards extolled as soon as the errors in the administration, the defects and the execution come to light after an accurate and searching investigation. And returning to our subject, we think we may justly reduce to three sources the principal causes of the failures and relapses which occur in regard to the operation proposed for the cure of the *tic douloureux*. Among the principal causes of the failures, the first that presents itself to our consideration is the quality of the operative process adopted by several practitioners, and its final scope. If we take for a subject of examination the greater number of cases wherein the * * * returned either instantaneously, or after awhile, it will be readily observed that the only scope prefixed in the operation was the simple incision of the nerve affected, which, if it obstruct the continuity of a nervous branch, entails the disadvantage of allowing the successive reunion of the nerve incised, and hence it effects but a temporary relief; or else an operative process is fixed on which is incapable of attaining to the principal end of neurotomy in cases of rebellious * * * ; that is, simply extracting a portion of the cord affected, or, in other words, excision. Every one must have learned from his physiological studies that

* Sur les maladies réputées Chirurgicales, t. III.

the * * * of the nerves incised can merely conjoin in the same manner as the contractile fibres, and thus convey back sensibility and mobility to the various parts which in consequence of the incision were deprived thereof.

Who has not heard of the admirable experiments made by Spallanzani on the aquatic salamander (Iriton), and of Schwan on the frog.* But, if, after having undergone the mere section of a nerve, it is possible to recover even a marked degree of impressionability and * * * * from the reconnection of the nervous fibres incised, it is so much the more difficult, not to say impossible, for these functions to be again brought into play if it happen that a considerable part of the nerve has been cut and removed.

While on this subject, I deem it expedient just to mention the experiments performed on some dogs by Prof. Luigi Malagodi, the glory of Italian surgery, which he thought proper to effect previous to his attempt to free by the excision of the ischiotic nerve, in the third inferior of the thigh, a certain Fillippo Sarti of Bologna, from an insupportable * * * * resident in all the ramifications of the said nerve which * * * * to the leg and feet, an operation so novel in surgery as to acquire for the illustrious surgeon no small share of renown.† Nalagodi perceived that after ten months the sensibility and mobility again awakened in the hind legs of those dogs in treating, which he limited himself to dividing transversely the ischiotic nerve by a single incision effected on the origin of the two branches, tibial and * * * ; while, on the contrary, the paralysis continued constant and perfect from the middle of the leg to the extremity of the toes in those dogs from which he removed any portion of the nerve. He did not stop at this first experiment; for at the end of the tenth month, he put to death all the dogs operated on; on dissecting them he observed that in the former the divided * * * were collected in a knot formed of a white substance about the size of a walnut, while in the latter the

* Descot relates that a man having cut the cubital nerve, instantly lost all sense of feeling in his fourth and fifth fingers, which he afterwards regained by degrees in consequence no doubt of the reconnection of the two * * * *
(*Sur les affections locales des nerfs.*)

† Bologna, 1830. On the incision of the sciatic nerve.

knot was seen in both the * * * bound together by an intermediate ligamentous cord, which acted instead of the portion of the nerve extracted. Not content with this, he discovered by means of maceration numerous ligaments of a nervous nature, which passed from one extremity to the other of the nerves conjoined by a single knot * * * the ligamentous cord resolved itself into a cellular tissue. Hence, he concluded that the safest means to prevent the uniting of the nerve was that of withdrawing a sufficient quantity thereof. It being thus established that the simple incision does not prevent the reunion of the * * * of the nerve affected, why is it to be wondered at that in the greater number of instances wherein the majority of surgeons have prefixed and still prefix the mere cutting of the nerve affected as the final scope of the operation, the * * * accesses have been renewed? If, therefore, Marechal, Louis, Klein, Sabatier, Delpech, adhered so much to the incision or section of the nerve as well in sub-orbital as in other * * * a want of success must have been a natural consequence thereof. "Ainsi, Marechal, (writes Valleix*) opera ou tenta d'operer la section du nerf (in trifacial * * *) sans aucun succès: des chirurgiens plus modernes ont fait également des tentatives infructueuses." Louis, in the aforesaid instance of the religious, confined himself, as Pinol testifies,† to the simple section of the sub-orbital nerve. "I have cut," writes Prof. Klein, "all the nervous filaments on one side of the face from the sub-orbital cavity at the posterior angle of the lower jaw, effecting the cut to such a depth as to touch the bone; and in one individual I repeated this *incision* full four times at different intervals, and nevertheless he derived therefrom but a temporary and fleeting advantage." Delpech, distinctly speaking of the * * * in the various branches of the * * *, expresses himself to the following effect: "On a souvent fait inutilement dans ces cas (frontal neuralgia) la *section* du nerf frontale. On a souvent entrepris (in sub-orbital neuralgia) la *section* du nerf sous-orbitaire, cette operation n' a pres qu' jamais en que de succès passagers. Nous avons vu pratiquer à son occasion (inferior maxillary neuralgia) mais sans succès, les incisions à l' interieur

* *Traité de néuralgies*, p. 210.

† *Sur le tic douloureux de la face.*

de la face, dans l'intention de diviser une partie de ce nerf." A similar ill success attended those practitioners who adhered to the process of Bonnet, that is, to the sub-cutaneous section in the cutting of the frontal and sub-orbital nerve (Petrequin). This operative process not only excludes the simple incision, but does not even guaranty the complete section of the nerve. Finally, a like failure, consequent on a similar obstacle, awaited those surgeons who undertook to ascend the sub-orbital nerve from the interior part of the mouth, incising to the length of an inch and a half the furrow which joins the upper lip to the gums. On the contrary, two operations by M. A. Berard, having in view the removal of a portion of the nerve were crowned with brilliant success.* (*Resection d'une partie du nerf.*) "Si l'on ne considère que l'ancienneté. (I may be permitted to quote the words of Valleix dictated on the subject of one of Berard's cases:) La violence, la gravité de la néuralgie, la prompte disparition des douleurs est la solidité de la guérison, c'est assurément là un des cas les plus concluants que nous possédions." (*Tr. des néuralgies*, p. 212.) The number of successful cases obtained by means of excision is now augmented by ours, which if not for its antiquity, at least for the violence, the strength of the neuralgia, for the prompt disappearance of the pains, is in nowise inferior to Bernard's case, quoted by Valleix in the twelfth Obs.; and we are quite assured that it does not yield thereto in the efficiency of the cure.

A second source of ill success or of relapses is attributable to an imperfect knowledge of the seat of the sub-orbital neuralgia, or, to speak more properly,† to the neglect of not having discerned previous to the operation the limits of the neuralgia, inasmuch as from the greater or less extent of this we must obtain the indication or counter-indication of the excision to be made. And, indeed, the pain is in some instances confined to the cutaneous branches of the superior maxillary vein or to the sub-orbital branches; in others, only the anterior-superior alveolo-dental branches are affected by the neuralgia; in others, again, it pro-

* Observations recueillies par M. Godin. *Journal de Conn. Med. Chir. Mat.* 1836, p. 442.

† What we here say of the seat of the sub-orbital neuralgia, is referable also to all the neuralgias coming under surgical operation.

pagates itself to the whole dental arch, to the body of the upper jaw, to the palata, the malar bone, the corresponding temple, and to the interior of the ear, following the course of the dentary branches, of the orbital branch and its malar and temporal ramifications and of the great superficial * * * * nerve. It is evident, that in the first mentioned case, wherein the pain is limited only to the cutaneous branches, the re-section of the sub-orbital foramen will be sufficient and indicated; every operation, however, will prove wanting and unavailing in cases wherein the neuralgia mounts to the branches which diverge at some depth from the branch in the fossa speno-mascellaris, which indicates that the complaint extends even to the origin of the nervous branch. When in this case we essay to excise the nerve at its point of emergence from the sub-orbital foramen, the pain will continue, nay, it will attain greater virulence in the other places. In order to effect a certain cure it would be requisite to extend the cut as far as the round foramen of the great ala sfenoidea; which no surgeon would even think of performing. If the anterior alveolo-dentary ligaments be alone affected by the neuralgia, it is then requisite in order to be secure of success to follow the rule and counsel of Malgaigne and excise the nerve in its own channel: an operation which is extremely difficult. One thing is indispensable, and that is an accurate examination of the seat of the neuralgia previous to undertaking any kind of manipulation. After this remark, we shall be no longer surprised if several surgeons have found that, even after the excision of the sub-orbital fascia, the neuralgic pain still adhered to the dentary arches, to the * * * and to the os mascellaris.

[*To be Continued.*]

Obstetrical Manual.—Prof. D. Warren Brickell of New Orleans proposes to issue on the first day of January of each year, a volume of 400 to 600 pages, devoted exclusively to obstetrics and the diseases of women. It will consist of a liberal exposé of every thing new in relation to these important branches of medicine, as no pains or expense will be spared to extend inquiries into every field. Subscription price, payable invariably in advance, four dollars per annum, or fifteen dollars for four subscribers.

ARTICLE II.

For the St. Louis Medical Journal.

LETTER FROM (DR. S. POLLAK.)

PARIS, March, 1861.

I beg leave to deviate for a moment from my itinerancy to and through some of the hospitals of Paris, in order to say a few words about the "Académie de Médecine" of Paris. The transactions there, always of great importance, were even more so lately, for reasons which I will endeavor to enumerate. Think not that I will attempt to give even a simple outline of the sayings and doings there; the "Bulletin of the Academy" does not in truth do justice to them. I will only state a few *facts* which may be of interest to you.

Scientific and learned associations have existed in France for centuries; they were independent of all government patronage and interference. *Colbert*, the great Minister of Louis XIV., was the first who acknowledged their importance, took them under his especial care, and endowed them largely. On the 22d of August, 1795, the "Republic of France" united them all, under the name of "Institut of France," a name which it has ever since maintained. It was divided into many distinct academies, which have changed with nearly every existing government; the last or rather the present are the five following:

1. L'Académie Française.
2. L'Académie des Inscriptions et Belles-Lettres.
3. L'Académie des Sciences.
4. L'Académie des Beaux-Arts.
5. L'Académie des Sciences morales et politiques.

The Academy of Science is divided into eleven sections, one of which is the section of *Medicine* and *Surgery*. Consequently our profession occupies as yet a very subordinate position in the *Institut of France*. As such it meets in the building of the Institut, and its transactions are published by the Institut. Conscious of deserving a more elevated and independent position, another and wholly independent Académie de Médecine has been

formed, which it is expected will soon be incorporated with the Institut of France, but as a separate division.

The Académie de Médecine owns its own building in the rue de Saints Pères, and holds its meetings every Tuesday afternoon from 8 to 5 o'clock.

The Académie de Médecine can only have one hundred members, and no more. Vacancies by death or resignations are filled by concours. It is the highest professional honor to be elected a member. Hence, only the oldest and the most distinguished men in the profession belong to it; but hundreds not members attend the meetings. The room is not large, and so densely crowded, that it is always filled an hour before the session begins. The members as they enter register their names on a sheet of paper. Punctual to a second, the President takes his seat, draws a score under the last name and signs it. None can be registered under the President's name. All who come in after that, are only entitled to their seats, but excluded from participating in the debates or voting, and are fined, besides, fifty sous. You can imagine how few are found absent at the opening of the session. The Académie is subdivided in the following sections:

- 1 Section—Anatomie et physiologie.
- 2 “ Pathologie médicale.
- 3 “ Pathologie chirurgicale.
- 4 “ Thérapeutique, et histoire naturelle médicale.
- 5 “ Médecine operative.
- 6 “ Anatomie pathologique.
- 7 “ Accouchements.
- 8 “ Hygiène publique, médecine légale et police médicale.
- 9 “ Médecine vétérinaire.
- 10 “ Physique et chimie médicale.
- 11 “ Pharmacie.

The members are distributed in these sections, and no member can belong to more than one. In the section of Physiologie, there was no vacancy for seventeen years, and not until the 5th of March, 1861, has the great and distinguished physiologist, *Claude Bernard*, the man of the times and the pride of France, been elected a member, to succeed Mr. Dumeril, lately deceased.

Of course, his election was unanimous; but usually there is much canvassing, log-rolling, and intriguing going on, almost equal to the United States. *Robinet* is the President this year; *Bouillaud*, Vice President; *Robin*, Secretary. I attended the meetings as often as I could, and will relate a few incidents.

Jobert exhibited a ball, which struck the forehead, penetrated the bone, and was stopped by the dura mater, of which it only caused a slight inflammation. Mr. *Jules Cloquet*, the retiring president, said that the ball was caught by the *visière* of the schaka, and struck only by ricochetting. He mentioned the celebrated duel between *Maréchal Bugeaud* and *Monsieur Dulong*. The ball which struck and killed the latter, separated in two pieces on entering the head, each piece running round the frontal, parietal bones, and sank deep in the occiput.

The Académie de Médecine offers annually a prize of 3,000 francs for the best essay on a given subject. The thesis of this year is: the *subperiosteal regeneration*, or *reproduction*, in fractures produced by projectiles or other causes.

Already, in 1847, *Mons. P. Flourens*, the perpetual secretary of the Académie des Sciences, published a series of experiments, instituted by himself and *Duhamel* on the following propositions:

1. Bone or callus is formed *in, and by, the periosteum only*.
2. The growth of the bone in thickness is effected by *superposed layers*.
3. The growth of the bone in *length* by *juxtaposed layers*.
4. The medullary canal is produced by the *resorption* of the *internal layers* of bone.
5. The heads of the bones are successively *formed and resorbed*, in order to be *formed again*, as long as the bone grows.
6. This *constant mutation* of matter is the great and marvellous spring or source of bony development. These were the mechanical experiments, abundantly and successfully illustrated by numerous drawings and osteological specimens.

Then he tried, and satisfactorily proved, the *identity of the medullary membrane and of the periosteum*, by the following propositions:

1. The *medullary membrane is the organ* which resorbs the *internal layers* of bone.

2. The medullary membrane *produces* bone *as well* as the periosteum.

3. The periosteum resorbs the bone *as well* as the medullary membrane.

4. In *certain* cases, the periosteum *produces* and *forms* the medullary membrane.

5. The *medullary membrane* and the *periosteum* are actually *one* and the *same organ*.

The production of *callus* is subject to the same laws as the production of the whole bone.

He then tried to prove the marvellous faculty the bones possess of *reproducing* themselves—thus:

1. The periosteum *reproduces* and *returns* all the portions of the bone which had been taken from it.

2. That even the *periosteum* might be destroyed, and it will reproduce *itself*, and *then* reproduce the *bone*.

Then he exhibited numerous specimens of osteology, both of mammiferous animals and birds, with the experiments which he made by means of *madder*. The immense auditory sat breathless, and listened to this learned man. He is very aged, and of course cannot continue the experiments much longer; and he proposed that it be made the subject of the prize essay for 1861; that five years' time be given to the essayists to hand in the results of their labors; that the prize be 5,000 francs, instead of 3,000 francs, as usual. Maréchal *Vaillant*, the distinguished Minister of War, was present, who is quite a scientific and industrious man. He arose and said, "the subject of *subperiosteal regeneration of bone or callus* is all-important for the *army*. Many a brave soldier might be reclaimed, even after receiving severe osseous injury, if the subject were well and generally understood. Amputations might be less, and entire recoveries more frequent. I beg you to add 5,000 francs more for the prize, in behalf of the government." This was received with rapturous applause. The same evening, Maréchal *Vaillant* was at the Tuilleries. In conversation with the *Emperor*, he stated to him the important labors which the Academy of Medicine was engaged in. The *Emperor* at once added 10,000 francs of his private purse to the prize on the above subject. This is now 20,000 francs, besides immortal honor, and fame, and gratitude of nations present and

to come. Will not some of our ambitious St. Louisians try it? Prizes were received there on optical theses, which were new and less known subjects, on a six months' notice; why not try this? Five years and 20,000 francs ought to be enough.

There are other medical Societies in Paris, independent of each other, which hold regular weekly meetings, always in the day time. The number of members is limited, and only elective on furnishing an *original* thesis on any subject. It takes several years before an applicant for membership can take a seat. They all have poor rooms, but good libraries. The transactions are minutely published in the numerous medical journals. They are worth publishing indeed. For only the ablest men are elected, and they are strictly kept to the rules, and time of speaking. They speak to the point, waste no words. Of course, a personality is never thought of, no matter how great the difference of opinion. Thus, M. Trousseau, who is watched with argus eyes, lately propagated some new theories on the subject of Apoplexy, and calls a frequently occurring disease *rheumatismal apoplexy*. In his lectures, in his forthcoming new work, and in the Academy, he launched out his new "really theoretical" ideas—he is more ideal than practical. At once, he was pounced upon by all the psychiatrists of the day. Only *Fabret, Delasiauve, Bouillaud, Baillarger, Grisolle*, have spoken; at least twenty more are on the list; they will all have their turn. After every speech Trousseau gets up, shakes hands with them, and embraces them, though they are *all* his *opponents*—just as in St. Louis:(?)

The Psychological Society meets every Monday.

" Medical Society (or Academy)	"	Tuesday.
" Chirurgical	"	Wednesday.
" Obstetrical	"	Thursday.
" Ophthalmological	"	Friday.
" Biological	"	Saturday.

They are all interesting and instructive in the highest degree.

The *American Medical Society* is defunct long ago—cause, want of interest, want of money, want of every thing. An alliance with the German Med. Soc. was proposed, but declined. They presented their small and dilapidated library to the école de Médecine. Very few Americans attend the meetings of the different Academies, and justly so; for there is not one in twenty

who understands the language. It is a very great mistake for American students or physicians to come here before they learn French. But more of this hereafter.

I will return to my *itinerancy* to and *through* the Hospitals of Paris, and commence with the *Hôpital Beaujon*, 440 beds; for males, 234; for females, 206; for medical, 262; for surgical cases, 178. The Physicians are *Behier*, *Gubler*, *Fremy*, *Montard-Martin*; the Surgeons are *Huguier* and *Gossetin*; the latter quite a celebrity, his surgical genius having been inherited from his father.

Beaujon is a beautiful hospital; the system of pavillions united by a covered gallery is here observed, as in the Lariboisière. It is well kept and has a very active service. I was glad to meet with two young American physicians of New York as *externes* there—which is, in fact, the only possible way for young physicians to learn something here. The physicians go through their visits quite mechanically, without spirit or good will. It is so-porific in the extreme. But Gossetin is a wide-awake, driving man, a bold, skillful surgeon, a courteous gentleman; likes to see visitors, and takes all pains to make a visit profitable. He will consult visitors, and frequently adopt their suggestions, which Parisian surgeons are not apt to do.

An extirpation of an encephaloid tumor of the neck by means of sixty-four caustic *flèches* terminated fatally on the third day. Here also is erysipelas, the bane of the surgeon, though not as much as in many other hospitals I saw, owing to a rigid cleanliness and a freer ventilation. Ventilation, or rather a draught of air, is the bugbear of the French. In hospitals and in private houses they hardly ever open a window. The surgeons insist that a current of air will bring on tetanus. My observation, that it is just as well to die of tetanus, which is an extremely rare occurrence, as to die of erysipelas, which is a *tri-daily* event, was not well received by the old surgeons, but quite coincided in by the younger ones.

They dare not perform here *many* capital operations owing to the fatal result consequent on the supervention of erysipelas, which in these crowded, illy ventilated hospitals is inevitable. Many patients having acute eruptive diseases are mixed with the others, though the terrible effect is daily manifest.

There is scarcely a medical ward in the Parisian hospitals without cases of *small-pox* in it. In Trousseau's ward there are nine in one room. If a person is well vaccinated it is all they enquire after. In the different *salles des nourrices*, mothers and infants are alike taken with small-pox. Vaccination and revaccination is rigidly and regularly practised, but not always with the desired effect. Vaccina and variola go through their different phases simultaneously without much influencing each other's characteristics. The disquisitions and discourses of the chefs de clinique are learned and interesting, but they never yet proposed the *only* remedy in such cases: the separation and isolation of small-pox cases from other patients and from contact with the community.

I have made inquiries at the Beaujon about the official service of the homœopathist, M. Tessier, who was there five years. I had the *promise* the necessary information would be given me. It required much time and labor to examine the journals. When I called again, I received a polite note from M. Husson, the director general of all the hospitals, excusing himself for *not allowing* such examinations to be made. He said: to examine the journals is a labor of several weeks, which he is not willing to allow to be made without an especial order from the government. This order would not be given without first conferring with the Faculty of Medicine, and the latter would doubtless object to it. And, unless he gives me the necessary information authoritatively and officially, it would not be credited. Hence, he reasonably concluded not to give me any. He simply added, verbally, "Homœopathy is not recognized by the government." Mr. Tessier received his appointment by concours, as well as any other chief. Once appointed, he is autocrat of his ward. None has a right to question his mode of treatment. Tessier received the first appointment in 1839, and has been in service ever since. His success is about the same as the others, but whether he strictly homœopathized he does not know. Certain it is, that his orders for cod-liver oil, quinine, wine of quinquina, iron, and saline purgatives, are just as large as those of any other service.

The *Hôpital Cochin* is the smallest of all the hospitals of Paris. It has only 125 beds, is under the charge of de *Saint Laurent* as physician, and *Desormeaux* as surgeon. It would

hardly attract attention but for the ingenuity which the latter is imagined to possess in inventing new *scopes*, which he calls *urethroscope* and *endoscope*. This is the age of scopes. We have got now a *stethoscope*, *rectoscope*, *vagina-scope*, *auro* or *otoscope*, *ophthalmoscope*, *laryngoscope*. The last two, comparatively modern; the French, envious of *Helmholz* and *Czermack*, for the invention of the last two instruments, taxed their ingenuity, and gave birth to an abortion. Desormeaux's urethroscope is nothing but a voluminous clumsy catheter of metal, with a cleft on one side, so as to permit the introduction of a stilet, or of caustics. To the outer end is attached an illuminating apparatus, which throws a few feeble rays, through this catheter, to the inner end, where a very small portion of the interior surface of the urethra may be seen. It is just as clumsy as useless, and as costly as ridiculous. But he goes still further, elongates this catheter an inch or two, bends it at an obtuse angle, and here is a small glass window, through which the light is thrown into the *interior* of the bladder. Of course the bladder must be filled. He pretends that he never fails to *see* a calculus without feeling it. This *lantern* of the bladder is even more ridiculous than the urethroscope. The introduction is excessively painful; the instrument very costly. The illuminating apparatus alone cost 300 francs. He will find none to contest the priority of invention. He is welcome to all the glory and fame of it. He is otherwise a good surgeon, an amiable man, and took it kindly when I called it the *lantern* of the bladder.

Hôpital du Val-de-Grâce is a military school and hospital. Only graduates are admitted as students, where military medicine and surgery are practically taught. I regard it as by far the best school in Paris, superior in every respect to all the others. Admission is difficult to obtain, and at the best is very limited. It is under the charge of a large corps of teachers, who are known both for their bravery and skill. They all lecture and hold clinics in their uniform, and are abundantly decorated. The students also are in their rich uniform. There is no crowding around the bed, but all can see and hear well. It is delightful to see the order, neatness, and quietude predominating there. I will enumerate the names of the Professors, and the

subjects they teach; for it is entirely different from any other medical school:

Director—Michael Levy.

Professors: Clinical Medicine—Godelier.

Clinical Surgery—Legouest.

Epidemics and Diseases of Armies—Laveran.

Operations and Surgical Apparatus—Lusterman.

Hygiene, Legal Military Medicine, and Administrative Rules—Champouillan.

Toxicological Manipulations and Chemistry, applied to Hygiene—Coulier.

There are besides the following *agrégé* Professors—Lallemand, Trudeau, Baizeau, Desgardins, Cohn, Perrin, and Boussin.

Nothing can exceed the dexterity and skill with which operations are performed, and wounds and injuries dressed. It is no wonder that the French are so far ahead of any other nation in their *field* medical appointments and arrangements. Nothing is wanting, every thing has its place, every thing is abundant, nice, tidy and compact. They have to go through the regular exercises of packing and unpacking all the equipments appertaining to an ambulating hospital, within an incredible short time. A hospital put up, and again struck and snugly stored away, did not take twelve minutes. I would have rather attended regularly here than at any other hospital in Paris. But my permission was only for three days. However, I learned many practical hints, which I will try to remember when required. This, and the little military surgery I saw in Naples, is to me invaluable. It is not read about, it is not taught, it must be seen. If a war breaks out, before I leave Europe I will try to take a few more practical lessons. The courtesy and politeness of the Professors at Val-de-Grace will be always remembered with gratitude, especially Monsieur Godelier and Mons. Legouest.

The *Asiles impériaux* de Vincennes and Vesinet,—These are two large and new institutions unlike any other in the world. They are *maisons de convalescence*, or houses for convalescent patients—Vincennes for males, 420 beds; and Vesinet for females, 320 beds. They are about ten miles apart, occupying extensive richly improved grounds and presenting a palatial appearance,

Paris.

abounding not only with comforts but luxuries, such as were never known in institutions of charity before. They are both creations of the present Emperor. Vincennes was opened in 1856, Vesinet in '59; and are intended for the reception of convalescing patients from *all* the hospitals of Paris, which are so crowded, that a patient, if he recovers, cannot possibly fully recuperate there. They are sent out for twenty days to these two houses, where the delightful air in the country, the healthy diet, and other accessories, never fail to restore them to activity and usefulness.

Everything which science, common sense, and experience could suggest to render these two hospital institutions true convalescing places, has been done. Never have institutions shown better results than these, and they ought to be imitated in every country. Few patients can regain their wonted strength in a crowded hospital; and if sent out too soon, and compelled to work for a living, they soon must come back, or succumb.

But these two convalescing asylums present a beautiful but severe criticism on Parisian practice of both medicine and surgery, especially the latter. Over 1800 cases of fractures were admitted in 1860, in Vincennes, and never, I aver, were such awful results known before. I exempt no hospital of Paris; they came from all. But so many shortened and distorted limbs are unpardonable. The Parisian surgeons are quick and very good at cutting, but are very poor bone-setters. Marjolin, in St. Eugenie, is yet the most successful; but as to the rest, they are shocking. No surgeon could maintain himself with us with such results. Whether the vitiated air of the Paris hospitals is the cause of it is not for me to say. Of course I have no knowledge how they succeed in private practice.

One more hospital I have to mention, which is *Bicêtre*, of 8,400 beds, under the charge of *Leger*; *Voisin*, *Moreau*, and *Belasiauve*, physicians for the insane; the latter having particular care of the idiots, epileptics, and paralytics. This immense establishment is absolutely unworthy of Paris, badly kept, dirty and filthy. It is at once seen that the Sisters of one or the other religious order have no hand in it. It was once a Caserne, it is now a hospital, and ought to be abolished. It is uninteresting, except the department of the idiots, which they endeavor to reclaim by means of gymnastics, and suitable mental

(?) exercises. They are far behind those in the United States, or even England.

I might mention a number of *hospices*, with important, but not always interesting medical services, but the above must for the present suffice.

Enough has been said to show the *immense* hospital accommodation Paris possesses. There are over 24,000 beds in the different *hospitals*—not *hospices*—besides, there is a *consultation gratuite* (dispensary) attached to every hospital, where not less than 300 patients at each are daily prescribed for, and medicines given gratuitously. Add then the very numerous *maisons de santé*, the large number of private clinics, and I am within bounds when I say that 60,000 persons are daily seen and treated gratuitously by the profession. What class of people can claim such charity! Do the merchants with all their boasted liberality do the same? Do the lawyers? or do even the clergy? It belongs to our noble profession to be the personators of charity, and next to them to that disinterested, self-sacrificing corps of women, of the various religious orders of the Catholic church. To have them as co-laborers is to have half the work done, and well done. May we always have them as our allies.

Now compare the amount of hospital accommodation of Paris with any city in the United States, say St. Louis. Paris with a population of 1,800,000 or 2,000,000, with 24,000 beds, and as many again floating patients, gratuitously tended. St. Louis with $\frac{1}{10}$ or $\frac{1}{11}$ of population, has not all in all $\frac{1}{10}$ beds, and not $\frac{1}{10}$ ambulating patients provided for. Comment is unnecessary.

There is no greater mistake made, then, when young unexperienced American physicians, *without a knowledge of French*, come here to study medicine. It is time, labor, and money lost. Lectures are wholly incomprehensible to them, and clinics not more so; for they invariably attend the central ones, (Charité, Clinique, Hôtel Dieu,) which are so crowded that not one bed in ten can be approached. And if approached, what is to be learned in this galloping way of doing business? If they would attend to the hospitals in the periphery of Paris, they might profit *some*, but I aver that no good can possibly arise from their attending the central hospitals. I see it daily, for it keeps me busy to explain the most apparent things.

But for the experienced practitioner, who at a glance will see what is going on, and to him who understands and speaks the language, Paris has no equal. Not at the lectures to students or at the sick bed of the great hospitals, but at those numerous private cliniques and courses of lectures on almost every imaginable subject. The truly great men of Paris must be sought after; they are hardly ever before the public. As a School of Medicine, Paris is greatly inferior to Vienna, Berlin, London, Edinburgh. They are not as rigid nor as censorious in examination, and are *wholly impracticable for us Americans in their treatment*. Many important branches are not taught at all; thus, the diseases of the eye have no chair. One must go to private cliniques to learn something. But for *Desmarres, Sichel, Deval, Fano*, Paris would not be able to see!! In Vienna, the two brilliant and rival men, *Arll* and *Jäger*, attract crowds from all parts of the world. In Berlin are *Jünken* and the immortal *Gräfe*. All nations flock there. But Paris has no chair; why? because the old fogies of the faculty, *Velpeau, Dubois, Bouillaud*, do not like specialities, and yet they are specialists themselves.

The Obstetrical chair is filled by *Dubois*; but this old fogy declines to give a course of lectures this year; he only attends the cliniques—doubtless the meanest that can be imagined. Such midwifery is *killing*, literally; for the mortality there is unparalleled.

To attend private courses is very laborious, very expensive. Still, it is the only means to profit from in Paris. Those who have neither time nor money to spare, or those not accustomed to very hard work, had better stay away. Let no one come here who does not somewhat understand and speak French. Many I know who spend all their time in learning French first; in the meanwhile their means give out, their patience is exhausted, and they have to go. Why not rather go to London, Edinburgh, or Dublin? In fine, Paris is an unrivalled place for men of experience, with full knowledge of the language, not stinted in means, and of untiring industry; any one who has not the command of these, had better try another place.

Already has this communication passed a reasonable length. I will stop short, though much I have yet to say must be left to some other occasion.

I have visited in Europe thus far fifty-two institutions for the Insane, familiarized myself with their organization, management and plan of treatment. I got the printed reports of most of them, of which I will make a copious use, in some subsequent communication. In France and England, printed documents relative to public institutions are easily obtained, but in Italy not at all, and in Germany only with great difficulty and greater cost. In Italy they never make reports; in Germany they make them, but do not often *print* them. They are handed to the proper authorities, who put them among the archives, where they remain undisturbed. If a report is ever printed, it is put in bookstores for sale, to be obtained only for more than its worth.

In England and France reports must be made, and are all printed, to be given *gratuitously* to any one who interests himself in the subject they treat about. Very numerous invaluable documents have I obtained from the various Ministers by merely asking for them in writing. I was not bashful in asking. But in Berlin they do not print; I could get nothing at all from the government; and in Vienna, they print *some* and *sell*; all I obtained had to be dearly paid for.

What a contrast between different countries, all alike making pretensions to enlightenment and liberality! In Belgium, the government is as liberal as in either France and England, but employees like to earn a penny from unsophisticated tourists, which unfortunately for them I was not, and *demand*ed peremptorily what they pretended to give only for particular considerations.

Nothing can exceed the courtesy with which an earnestly enquiring tourist is everywhere received in Paris. Every facility is given him to attain his object. From the Minister down to the humblest employee, it is all the same. How much my countrymen might profit here, if they only would evince an earnest willingness to learn.

I may not be able to write from Paris again, but will do so from England, and reserve myself abundant material for many communications when I am quietly seated at home, in my own St. Louis.

Addendum.—I wish to add my appreciation of and thanks to the following three persons:

1. *Claude Bernard*, whose bi-weekly lectures and practical demonstrations in Physiology at the *Collège de France* I have regularly attended, and found myself among an auditory, the like of which cannot be seen elsewhere ; not so much on account of numbers, as for character and standing. Celebrities and high authorities, not only from Paris but from all parts of the world attend these lectures. As a lecturer Bernard is very indifferent, but as a demonstrator he is unrivalled. He no sooner enunciates a physiological fact than he *proves* it. The crucible, the test-tube, the galvanic battery, are constantly being tried on numerous dogs, cats, rabbits, horses, sheep, frogs, etc. First he speaks, then he draws, then he experiments with equal rapidity and success. Grey-headed, richly decorated savans fill the hall, and bow respectful assent to his *new* and to the world *unknown* facts. I have had the honor of being frequently in his company. He is a child in manners, but a giant in intellect.

2. *Charles Robin*—Lectures and microscopical demonstrations in Anatomy and Pathology. An honest and faithful worker, and a rigid enquirer after *truth*, he admits nothing which cannot be chemically and microscopically *proved*. Hence, all he *says* is implicitly relied on. He does not compile, but he examines, tests and proves. He is justly regarded as the most reliable anatomico-pathological authority extant.

3. *E. Follin*, whose weekly lectures and demonstrations on Optics, with microscopical and ophthalmoscopical apparatus, are too attractive not to be followed by all enquirers into the revelations made by these instruments. Fluent in delivery, rapid and accurate in drawing, successful in manipulation ; he is amiable, courteous, and in possession of abundant material.

I wished to add the names of these three men to the above (my third) communication, so that no American may neglect seeing them. Though my countrymen may not always *understand* what they say, they can at least *see* what they do, and profit by it.

ARTICLE III.

Proceedings of the St. Louis Medical Society. By THOMAS KENNARD, M.D., *Reporting Secretary. Physiological and Therapeutical Effects of Belladonna.* (Continued from May number, p. 129.)

Dr. F. W. WHITE said, he was glad the subject of Belladonna, its physiological and therapeutical effects, had been brought before the Society. He was much interested in the subject, and anxious to hear from the members their opinions as to the maximum dose that could be safely administered, and what was meant by giving it to intoxication. Taylor, in his work on poisons, relates a case of death from this drug where only two or three grains had been taken; but now we hear of it being given "to intoxication." A few days ago, I saw an article wherein the author criticised some remarks of mine, suggesting the use of iodide of potassium instead of chlorate of potassæ, in this disease. The author recommended as a specific belladonna in intoxicating doses.

Hahnemann suggested the use of this drug, as a prophylactic in scarlatina, as long ago as 1799, and his followers have adduced much evidence, of a negative kind, to prove this doctrine. I do not believe that it possesses any virtue, either as a prophylactic or curative agent, in the treatment of scarlatinal, croupal, and diphtheritic sore throat—a treatment so prevalent and fashionable among homœopaths, who recommend and give it in enormous doses. It demands our attention the more, since not a few regular physicians entertain the same view, that it is prophylactic to scarlatina and kindred diseases. If this drug had been recommended to us by an educated physician instead of a quack, its virtue would have been tested and its value determined long ago; but with few exceptions regular medical men have not thoroughly tried it. Its introduction as a preventive has been also attributed to Castilléz, but there can be but little doubt that the honor, if there be any, is due to Hahnemann, who in 1799, in a communication published in Hufeland's Journal, says, "I gave a girl ten years of age $\frac{1}{15}$ of a grain of the extract of belladonna, (which he considered according to subsequent experience *rather too large a dose*); it had the desired effect. I have long been

in the habit of using belladonna as a sedative in coughs, and as a local application, with decided benefit; and a year ago, when the subject of diphtheria was discussed by this Society, I was anxious to have several points settled in reference to the differential diagnosis of scarlatina, croup, and diphtheria, upon which I then made some remarks. I am still desirous that the subject should be considered. The majority of cases of diphtheria that have come under my observation during the past twelve months, have been mild and recovered under very mild treatment; but in some instances it was difficult in the onset to distinguish them from croup and scarlatina, whilst others in the same neighborhood, and at the same time no more malignant, died when treated by belladonna and mercury in the hands of homœopaths.

In the remarks which I purpose making, I will attempt to prove, first, that facts do not sustain the theory of Hahnemann and his followers; second, that the action of belladonna in the system does not sustain the assumption. I will read a few extracts, *pro* and *con*, as I find them published in the British and Foreign Medico-Chirurgical Review for 1855, by J. Warburton Begbie, in his excellent review on the prophylactic power of belladonna in scarlet fever, which will suffice for the first proposition. He presents the following facts in favor of it as a preventive. Dr. Schenck witnessed its effects during an epidemic at Hilchenback in 1812. Eight persons had already died and twenty-two were then affected. Of 525 persons who used the belladonna, 522 were not attacked by the disease, and the three persons who suffered were a mother and two children, who it is said were peculiarly exposed to the contagion, and had only taken the drug four times. Hufeland and Himley, his associate editor, of Hufeland's Journal, both speak favorably of it as a prophylactic in 1812, and in 1825 Hufeland himself writes as follows: "It is to me a great pleasure to be able to confirm, by new observations, the prophylactic power of belladonna in scarlet fever. It is now thirteen years since, in this journal, the first mention was made of the employment of this preventive and each year since that time has brought with it a large number of corroborative facts." M. Masius, Professor of Medicine at Rostock in 1813, asserts his belief in it, founded on his own immunity from the disease during two years while treating cases of a malignant type. He took half a grain

of the extract every day in four doses when visiting scarlet fever patients, etc. M. Berndt observed an epidemic in 1817, '18 & '19 in Custring. The following are the results of his observations: "Of 195 children daily exposed to the contagion, and to whom I administered the belladonna, there were only 14 who, notwithstanding the remedy, contracted the disease, whilst the other 181 were preserved. The fourteen who did suffer, had the disease less severely than those who had been similarly subjected to the influence of the contagion without the belladonna." Muhrbeck speaks in the highest terms of its efficacy, having employed it about seven years and always with success. Behr, at Bernbourg, says, during an epidemic in 1820, and which though not at first of a formidable character speedily acquired a fatal aspect—among 47 individuals to whom the belladonna was given, only six were attacked by the disease. Dr. Beeke, among other experiments in favor of the virtue of belladonna, mentions an epidemic in which 120 were already affected; the specific was administered and thereafter only 39 cases occurred. In Glasgow, among 94, seventy-six were preserved. Fifteen who had not taken the remedy were attacked, and three who had taken it were attacked, two of whom died.

Here is a proud array of facts in favor of the prophylactic use of this drug, or its alkaline principle, *atropia*, in number greatly exceeding those against its merits, and these are only a small portion of the whole number published in this paper; but you will not fail to observe they are all *negative* facts, and rest on the presumption that all who took the remedy were by its virtue protected. The argument runs thus: Many persons took belladonna during an epidemic of scarlatina, and were not seized by the fever; therefore it is a prophylactic. We might more justly invert the argument, and say, certain persons took belladonna during the epidemic and were attacked; therefore it is not a prophylactic.

I will now present a few opposed to this position. Dr. Lehmann says: "In a family consisting of three boys, the eldest was attacked—the other two were immediately removed from the sick room and were given the belladonna solution." "Four days later the youngest was seized with the disease in a severe form; he recovered; and the third who remained in proximity to the patient, but at the same time took the belladonna regularly, contracted the disease and fell a victim to it." "In a family of

five brothers and sisters, a boy of five years was first attacked with scarlet fever. To the other four the belladonna was immediately given. After eight days a little girl of four years was attacked and died. The following day a sister three years old took the fever mildly and recovered; another sister of eleven years was almost immediately after seized and died. The eldest brother remained free from the disease." "A boy of seven years, an only son, contracted scarlet fever after having uninterruptedly during several months taken belladonna. The fever assumed a cerebral character and he died on the fourth day." "In a family of four children, the eldest became affected with scarlet fever. The remaining three were immediately put on belladonna; two of these on the twenty-first day of the use of the drug became affected with the disease, in a severer form than the first child who had taken no belladonna."

"At Stralsund, Dr. Mierendorf observed, that the children to whom belladonna was given became more seriously affected, and died in much greater proportion than those to whom the drug was not prescribed. Dr. Schmidt lost two children, who had taken the same prophylactic. Of one hundred children so treated, fifteen became affected with scarlet fever and one died."

Mr. Benj. Bell experimented in an epidemic at "George Watson's Hospital" in 1851, and writes as follows: "Conceiving that no means for arresting the disease ought to be neglected, and that a favorable opportunity offered itself for testing the alleged prophylactic virtue of belladonna, I determined to give it a full and fair trial." "Accordingly, on the 21st of February, upon the appearance of a second case of scarlet fever, the fifth part of a grain of the extract was given morning and evening to each of the boys. The dose was found in a few days to be too large from the dilated state of the pupil and impaired vision, which it occasioned in several instances. It was accordingly diminished, and then administered without intermission to all the boys, who continued well until the 7th day of June, a full month after the case of scarlet fever had occurred. It is important to remark that the second case already referred to had been in the sick room, separated from the rest of the boys, for more than a week before the symptoms of scarlet fever had appeared, and that no additional case occurred until the 21st of March, an entire month

after the belladonna had been regularly administered. There was thus ample time for the manifestation of its virtue as a prophylactic, but the subsequent occurrence of so many cases seems to throw considerable doubt over the existence of any such power. No experience of a negative character can be regarded as of much weight when contrasted with this positive experience now detailed. It is by no means unusual to meet with only two or three cases of scarlet fever in a large assemblage of children without the belladonna having been given at all, and we are therefore not called upon to give it the credit of securing a similar exemption in cases where it has been administered; but merely the occurrence of twenty-three cases out of fifty-four boys who might be legitimately liable to the disease is an overwhelming evidence on the opposite side."

Dr. Elb, a homœopathic practitioner at Dresden, says: "I must add, that in general I did not find the prophylactic power of belladonna by any means so generally borne out; although cases have come before me in which I gave belladonna as a preventive, and the children to whom I gave it remained free from the scarlet fever. But just as often have I found that children have been attacked by it, notwithstanding the use of belladonna for several weeks, and that this long previous use of belladonna had not even the power of diminishing the violence of the disease."

Dr. West, in his excellent work, says: "Dr. Balfour experimented in the wards of the Royal Military Asylum at Chelsea, and says: 'There were one hundred and fifty-one boys, of whom I had tolerably satisfactory evidence that they had not had scarlet fever. I divided them into two sections, taking them alternately from the list, to prevent the imputation of selection. To the first section (76), I gave belladonna; to the second section (75), I gave no belladonna. The result was that two in each section were attacked by the disease. The numbers are too small to justify deductions as to the prophylactic powers of belladonna; but the observation is good because it shows how apt we are to be misled by imperfect observations. Had I given the remedy to all the boys, I should probably have attributed it to the secession of the epidemic.'"

Dr. Andrew Wood's experience in Heriot's Hospital, is thus

mentioned by Dr. Simpson; "In Heriot's Hospital, Dr. Andrew Wood placed half the boys in each ward or sleeping division on belladonna, and left the other half without any such protection. The disease did not spread much; but at least as many of those using the belladonna as those not using it were attacked; and the only fatal case of forty which occurred, during that epidemic, was that of a boy who had been using belladonna in doses of one-eighth of a grain twice a day, for three weeks previously to his being attacked." It will also be observed, that most of the facts in favor of belladonna as a preventive were obtained after the epidemic had spent itself, which is not the case with those against its virtue as such; and that *many died*, notwithstanding this remedy had been faithfully given antecedent to the attack.

The evidence in favor undoubtedly far exceeds in quantity but not in quality that against its preventive qualities. The argument is altogether *negative*; how can it be known, therefore, that any one would have been seized with the disease in any of these epidemics if belladonna had not been given? *Quality* of evidence is admitted to be superior to *quantity* in a civil court, and it should be so, especially before the bar of a scientific profession. One positive relevant truth is more valuable as evidence than one thousand negative witnesses. In rheumatism, for example, many contend that lactic acid exists in every case; but if one case has been known to exist with alkaline urine, it certainly proves that lactic acid is not a necessary accompaniment of the disease. Dr. Benjamin Bell's facts and those related by the *homœopath*, Dr. Elb, weigh more with my judgment than all the others read. But when Dr. Bell tried his experiments, it was a principle of homœopaths to deal with infinitesimals; they argued, therefore, that he used the preventive in too large a dose, and hence failed in his experiments. But any rational man must acknowledge that to act on the doctrine of *similia similibus*, it must produce the sore-throat and exudation peculiar to that disease, and if it has this power it can only so act with benefit in a poisonous quantity, certainly not in infinitesimal doses inappreciable even with the aid of the microscope. Hahnemann and his followers in using it contended that it acted upon the principle, "*similia similibus curanter*;" but we neither find it producing the scarlatinal sore throat, nor any other condition peculiar to that dis-

ease. Here we meet the argument of the modern homœopaths, who ignore Hahnemann's infinitesimal doses, but still contend that it acts upon the principle "*similia similibus*." We deny that this agent produces conditions identical with those accompanying either scarlet fever, croup or diphtheria, since none of the symptoms which it produces are at all similar. Before it can have any effect upon the throat, it must be given in poisonous doses, when it will cause only a *peculiar* dryness and constriction of the fauces. The angina in these diseases is an effusion, an exudation, and the eruption begins with little red spots, which soon become very numerous and run together and afterwards desquamate, whilst belladonna produces only a diffused livid appearance of the skin without desquamation.

Let us pass to the question,—what are its physiological and pathological actions? It will not be difficult to prove that the admitted action of belladonna upon the system does not suggest its use in these diseases either as a prophylactic or curative agent. Bailey asserts, "that it affects neither the stomach nor bowels, neither excretion nor secretion, except of the salivary glands." Its general action being that of a powerful and most dangerous narcotic, Headland classes it among deliriant narcotics. Being an active sedative, its physiological effect is often extreme. This should point us to its most remarkable therapeutic power when administered in appropriate cases. Its physiological action is first by slight stimulation, and afterwards by great depression of the vital activities. It differs therefore from some other narcotics, which possess great stimulating power, as, for instance, alcohol, chloroform and ether, which possess only moderately sedative powers. Now can such a depressor be indicated in malignant scarlatina and diphtheria, where the tendency is to depression almost from the beginning, characterized by exudation growing out of a dissolution of the blood?

Exudations are respectively euplastic, caco-plastic, or aplastic. In the case of croup, the formation may be plastic, highly fibrinous; in scarlatina, almost entirely aplastic, sero-albuminous, and tending to putrefaction. Diphtheria appears to rank between the two, the effusion being either fibrinous when the attack is acute and sthenic, or fibro-albuminoid, or indeed, if slow, insidious and asthenic in its approach—the effusion may be sero-albuminoid.

Now, we cannot understand how belladonna can exert any beneficial effect in such diphtheria where all antiphlogistics or sedatives are injurious. We need stimulants from the beginning. If it be true that malignant diphtheria, scarlatina, and croup, are blood diseases, a narcotic is certainly not indicated—alteratives are needed. I think iodide of potassium has probably the highest claim. It has always been used with benefit in the sloughing mercurial sore throat—a condition almost identical with that of diphtheritic ulceration; mercury would be for this reason a bad remedy, especially after the acute stage had passed. Iron and alkalies are the great constitutional means. Diphtheria is a true blood disease, and I would use stimulants to elevate the nervous power, whilst I would use alteratives and tonics to cure the blood disease. It would appear therefore irrational empiricism to administer belladonna “to intoxication” in these diseases.

Dr. M. A. Pallen. In regard to the therapeutical effects of belladonna, in the main, I fully concur with Dr. White, and as far as the contra-indication to its use, I think he has completely exhausted the subject; but other points might be more fully elaborated. I am sorry I did not hear, at the last meeting, the precise question for discussion this evening, or I might have collected some facts which would wholly disprove its prophylactic effects. I have tried it several times, and in every instance it has failed. In one house where it was freely given, seven patients had malignant scarlatina, and in various other instances a similar result has followed. As mentioned in one of the extracts read by Dr. White, many hundred children took the belladonna and only six of them had the scarlet rash, thus proving that it does not act upon the principle “*similia similibus curanter*,” even if there be any analogy between the sore throat produced by belladonna and that common to scarlatina, diphtheria, croup, or muguet. In the first place, I deny that there is any correlation of these diseases. In thrush, the formation in the buccal cavity depends upon the *oidium albicans*, and is of parasitic origin. There is a correlation of symptoms between this and the other diseases just mentioned, but not of causes. In croup the exudation is decidedly plastic, whilst in diphtheria it is aplastic, and I have thought it was due to a true necrosis of the blood. Croup is generally decidedly sthenic, high fever, strong pulse; whilst in diphtheria

there is marked prostration, pulse rapid, but frequent and weak, and the exudation of croup begins lower down in the larynx than that of diphtheria. I am sorry I did not hear Dr. Kennard's essay, and may repeat what he has said: I believe the diphtheria we meet with differs considerably from that described by Bretonneau. We find the exudation will form on any exposed mucous membrane, the throat, the nares, the vagina, etc., and on denuded surfaces, but it never however extends down the œsophagus or is found on any mucous membrane not exposed to the air, which is an indication that it depends very much upon atmospheric influence, is due to some poison in the atmosphere which is absorbed, taken up by the epithelial cells on the mucous membrane. There is certainly a zymosis of the blood in this disease and certainly belladonna can exert no beneficial alterative influence on that fluid, and hence its use is contra-indicated. The stimulant and tonic method of treatment with good nutritious food is best—such as milk, eggs, etc. I might perhaps modify my definition of croup somewhat, by saying, the blood is diseased secondarily. At first, true croup is most generally a true laryngo-trachetis, a pure inflammation, and the changes in the blood result from its carbonization for want of oxygen, diminished supply of air, and afterwards uræmic poisoning follows from checking of secretions. Its treatment in the primary stages should be depletion, general and local, free use of tartar emetic; but such treatment would be very wrong in diphtheria, for it would only hasten the destructive effects of the zymotic poisoning. I think scarlet fever, though of the same genus, does not belong to the same species of disease as either croup or diphtheria. They exist together and follow each other, and must be treated according to the precise condition of each individual patient. If sthenic we may deplete, and if asthenic we must stimulate and support; but I do not see that belladonna could be indicated in any case.

Dr. KENNARD said, he had noticed several cases reported in the journals tending to prove that opium and belladonna were true antidotes for each other, and that poisoning by one could be cured by the other. He would ask the experience of the members upon the subject.

Dr. WM. JOHNSTON said that numerous cases had been reported in the London Lancet, proving that opium and belladonna

were mutual antidotes. In ten cases reported by Dr. Seaton, in the *Medical Times and Gazette*, where poisoning from belladonna had happened, two cases treated by emetics recovered slowly; of eight who were fully poisoned and suffering from delirium and wakefulness, seven took opium and recovered as soon as its effects upon the system (as manifested by contraction upon the pupil and sleep) came on. The other case was in bad health, took but little opium and died.

Dr. NEWMAN said, he had been surprised to read of belladonna being given in such enormous doses, as much as a scruple a day. In one of the cases referred to by Dr. Johnston, as much as fifteen grains of morphine were given as an antidote before the system became affected, two grains every two hours. He had used it a long time, but very carefully, and considered it dangerous. It was an important and very useful remedy in nervous diseases, in coughs, and as an external application. I never exceed the one-fourth of a grain of the extract at a dose, and then the poisonous effect is sometimes produced. I use it frequently with stramonium ointment for hemorrhoids. Last year I ordered 1 drachm of it with a half ounce of the stramonium ointment for a very painful and annoying boil, which relieved all the pain in six or eight hours, but produced violent symptoms of poisoning by the one external application, which however passed off and there was no further trouble.

Dr. MCGINTIE had used it frequently and for a long time with benefit in dysmenorrhœa. He had also used it in whooping-cough; but could not say much for its value. Had once taken himself five drops of fluid extract for neuralgia, which did no good but produced the poisonous effect.

Dr. M. M. Pallen remarked, that during the discussion of the properties of belladonna, very little had been said about its power of dilating the os uteri. We all know that it does dilate the pupil, and that it is very probable that it does so by acting on the longitudinal fibres of the iris, contracting them, and at the same time of necessity dilating the circular fibres. Now we find an analogous formation of circular and longitudinal muscular fibres entering into the formation of the mouth of the womb, and we might very naturally suppose belladonna would assist in dilating

the os tincæ in a similar manner ; but I have never yet seen any positive proof that it did, although I have used it frequently for the purpose. It certainly does good in chronic inflammation of the conjunctiva, acting I believe as an astringent, and thus constricting the capillary blood-vessels, as it does those of the mouth, producing marked dryness of the throat when taken in an overdose. I imagine it acts the same way on the mammæ, by constringing the blood-vessels, checking secretion and preventing suppuration, when locally applied to the inflamed breast. Sometimes in primapara, we find the neck of the womb high up and back towards the sacrum, with os but slightly dilated, and the anterior lip projecting. I had a case of this kind a week ago. The plan I employ to remedy this, is to pass the finger into the mouth of the womb and gently pull it down anteriorly, thus making the head of the foetus bear more directly upon the os uteri, which generally hastens labor. I have used this method successfully for some time, and recently saw it recommended in the London Lancet.

FRACTURE OF THE STERNUM.

Dr. McPHEETERS reported a case of fracture of the sternum, the upper third. There was but little trouble in detecting the nature of the injury, there being marked prominence in front. Fractures of this bone are very rare, and always caused by violent falls or blows. I simply applied a firm compress and made gradual pressure, and up to this time no bad symptoms have occurred.

Dr. KENNARD said, that Dr. Van Studdiford told him he had recently had a very remarkable case, in which after delivering a lady of a healthy child, there were two separate placentas discharged, the one belonging to the child, and the second developed to about two-thirds the natural size, and having a hard calcareous formation as large as a goose egg attached. The peculiarity was the development of the placenta, when the ovum must have been blighted at a very early stage of pregnancy.

Dr. GREGORY mentioned a peculiar case which occurred in the hospital, a few days since. A patient presented himself with a swelling in the right iliac region the size of a cocoanut. It began about two weeks previous, apparently without any cause ; had

gradually increased in size, but was not very painful. The history of the case proved it to be inflammatory in nature, and in feeling and appearance it resembled a common abscess ; but it was resonant, evidently containing air, so that I hesitated to open it. Several other physicians saw it, and all thought it must be an abscess, but could not account for the resonance. After having it examined by several of our most eminent physicians, all of whom, like myself, believing it an abscess, but not able to account for the resonance, I opened it, and air, pus and fecal matter were discharged. A *post-mortem* showed several openings in the intestine, and, also, that I did not make them. The openings were primary, and the abscess, a consequence, followed them. It was very strange that the patient, who was intelligent and seemingly reliable, said he had had no derangement of bowels and had had no pain in the tumor.

Dr. HODGEN said, he was informed to day that the Cæsarean section had been performed during the past week upon a woman, who died at the City Hospital during labor, and a living child removed, which was doing well. The operation was performed by two young men, assistant physicians in that institution.

Dr. HODGEN. This evening I wish to call the attention of the Society to another invention of my own, in which I trust you will find, not only something useful, but something *new*. It is a splint, intended for the treatment of compound fractures of the lower extremities with the external injury on the posterior aspect. The splint is so arranged that the external wound can be reached and dressings applied without the least disturbance to the limb. It consists of a double inclined plane with the usual joints at the hip and knee ; the thigh piece is divided in its length ; the hinges are made of strong linen tapes, beginning above and below on the base, passing to its posterior ; those above are continued on the thigh pieces above, and those below are continued on the thigh pieces below ; they occupy these positions forward to the joint at the knee, where they change their positions ; those above on the thigh piece are carried below on the part on which the leg rests, and those below at the thigh, pass on the under surface at the leg. By ratchet wheels on the under surface of the leg piece, the tapes (that are above at this point) after passing through a mortice can be tightened or loosened.

When it is necessary to dress a wound on the back part of a fractured thigh, the tape connected with one of the ratchet wheels is loosened, and one half of the thigh piece is let down, the thigh being supported by the remaining part, which also keeps the leg piece in its place firmly, so that extension is fully maintained. When dressings have been applied to this part, the ratchet wheel is turned, the tape shortened, and the thigh piece brought fully and firmly into place. The other part may then be managed in the same way.

The same arrangement may be made with the leg piece, by dividing it and reversing the position of the fixed and free ends of the tapes.

With this instrument, I (in connection with Prof. Moore) treated a case of compound fracture of the thigh—the bone being broken at two points (only one fracture communicating externally,) during the last summer, in a boy five years old, with perfect success, and comparatively little trouble.

Forty-two days after the accident, the splint was removed, and the limb was not, so far as I could ascertain, shortened in the slightest degree.

Dr. HERMANN STIEREN read the following report of a case treated by him :

METRITIS PARENCHYMATOSA.

Sometime ago, I was called to see a woman who had been given up as dying by the physician who had treated her up to that time, but thought it unnecessary to visit her any longer. When in the evening I came near her residence, I heard her scream a distance of about fifty yards, and on entering the room found her in the greatest agony.

Several weeks previously to her present condition, she had had (as her husband told me) inflammation of the bowels, which being over, she had in consequence of menstruation an uncommonly great loss of blood, which kept on for four or five days, although she had always before menstruated very regularly. The then attending physician had administered to her the aromatic sulphuric acid, one dose of which stopped the menstruation entirely. But the next day she complained of pain in the belly, and had great difficulty in urinating; and when I saw her for the first time,

about four days after she had taken the medicine, she suffered greatly with pain in the back and in the side; had had no operation of the bowels for several days, and could not urinate.

Upon examining the belly, I found it the size of that of a woman in the fifth or sixth month of pregnancy, and she could scarcely suffer it to be touched. The introduction of the finger found the uterus much enlarged and prolapsed; the speculum showed the uterus enlarged, greater turgescence than natural, more sensibility, and of a dark-violet color, particularly around the orificium, which secreted very abundantly a turbid, yellowish, pus-like substance. The examination per anum, which caused the patient great pain, showed an inflammation and contraction of the rectum, from which poured out a turbid, whitish liquid. I ordered five grains of calomel with half a grain of podophyllin, to be taken directly, and a tea consisting of juniper berries, uva ursi, water-fennel and parsley-seed, to be taken freely during the night, and frequent injections of ice-water into the vagina as well as into the rectum.

Early the next morning I found the woman very little relieved, although she had been able to urinate and had also had a passage. I then ordered cupping on the swollen parts of the abdomen, after which anointing these parts with mercurial ointment, mixed with extract belladonna, which was rubbed in every two hours. Besides, I prescribed a solution of three drachms nitrate of soda and one grain of morphia in five ounces of water. One tablespoonful to be taken every three hours. In the afternoon I applied around the orificium uteri three leeches, which took off a large quantity of a dark-red, almost black blood. The next day I found my patient much better, complaining of only little pain; when, five days after the first time I applied three other leeches, and after another week three more. The patient having taken all the time a solution of one drachm of ferro-citrate of quinine in five ounces of water, and having used frequent injections of cold water into the vagina and rectum.

About a week after beginning my treatment I saw the patient entirely out of danger; and after two weeks more she had so far improved, that she was able to visit me in my office, which was about twelve squares distant from her residence.

ARTICLE IV.

Nitrate of Potash in the cure of Intermittent Fever. By
AMOS SAWYER, M.D., of Hillsboro', Illinois.

R.—Potassæ nitrat., gr. x.; Spr. vini gallici-vel. aquæ, ʒ ss.
S.—M.—Take immediately.

The above prescription I have used with great success in the cure of intermittent fever, even where quinine has failed. In my opinion no preparation is equal to it; for it possesses antiperiodic properties completely, and may be administered, when the stomach would not tolerate quinine. I deem it a specific in ague; for I have never failed to arrest the paroxysm, if uncomplicated. You will also find that the patients are less liable to relapse than in those cases cured by quinine. In the cold stage, if administered in a full dose, and the patient be placed in bed and covered with blankets, he will in a few minutes experience considerable heat, which will be followed by copious perspiration, and every unpleasant feeling will vanish. It is seldom the patient will experience a second attack. Where it is more agreeable to the patient, the powder may be placed on the tongue and permitted slowly to dissolve.

I shall not attempt to explain the action of this medicine on the system in the cure of ague, but will leave that to older heads than mine to determine; still, we do know that after it is taken into the stomach and becomes absorbed, it has the chemical effect of changing the dark-colored venous blood, to arterial, or at least it changes its color. It also acts on the kidneys as a stimulant producing diuresis, as well as diaphoresis; and in this manner may rid the system of the poison that causes the ague; provided that poison is produced "by the retention of materials destined for excretion." This medicine more closely resembles nature's mode of curing this same disease than any other; as she cures by copious diaphoresis as well as diuresis, or in other words by elimination.

PART II.

REVIEWS AND BIBLIOGRAPHS.

ARTICLE I.

Hand-Book for the Military Surgeon: being a Compendium of the duties of the Medical Officer in the Field; the Sanitary management of the Camp—the Preparation of Food, etc.; with Forms for the Requisitions for Supplies, Returns, etc.: the Diagnosis and Treatment of Camp Dysentery, and all the important points in War Surgery, including Gun-shot Wounds, Amputations, Wounds of the Chest, Abdomen, Arteries and Head, and the use of Chloroform. By CHAS. S. TRIPLER, A.M., M.D., Surgeon U. S. A., and GEORGE C. BLACKMAN, M.D, F.R.M.S., Professor of Surgery in the Medical College of Ohio; Surgeon to the Commercial Hospital; St. John's Hospital, etc. Cincinnati: Robert Clark & Co., Publishers, No. 55 West Fourteenth street. 1861.

The object and aims of this little work are fully set forth in the very elaborate title page which we have copied above. A more opportune work could not well have been presented at this time. The civil war which now unhappily exists, has called into the field a large number of physicians to act as surgeons and assistant surgeons; who, however well skilled in their profession, are wholly ignorant of the duties and requirements of camp life, which can only be acquired by experience. Under these circumstances, to have for their guidance the directions of such an experienced army surgeon as Dr. Tripler is a very great advantage, and one which we doubt not, all who can, will avail themselves of. Not the least useful part of the work is the appendix, in which are to be found supply tables, forms for requisition for supplies, returns, etc.

The chapter on Wounds of the Abdomen, Head, and Arteries, are by Prof. Blackman, whose competency for the task no one will question. We advise all who are, or who expect to become Army Surgeons, to procure a copy of this work, which is of such size as to render it conveniently portable while on duty in camp. It may be had of the publishers, whose address is given above, at a cost of one dollar.

ARTICLE II.

A Treatise on Fever ; or Selections from a Course of Lectures on Fever. Being a part of a Course of Theory and Practice of Medicine. Delivered by ROBERT D. LYONS, K. C.C., M.B.T.C.D., *Physician to Ferbis street Hospital; Formerly Clinical Assistant to the Meath Hospital; Professor of Practice of Medicine and Pathology in the School of Medicine in the Catholic University of Ireland; Late Pathologist-in-Chief to the British Army in the Crimea, &c., &c. Philadelphia: Blanchard & Lea. pp. 349. 1861.*

The object of the author in the work before us on Fever, is "to bring within the reach of the student and junior practitioner, in a convenient form, the most recent results of enquiries into the Pathology and Therapeutics of this formidable class of diseases."

There is no subject of more practical importance to the practitioner of this country than that of fever, and notwithstanding all that has been written on the subject, it has lost none of its interest. Ireland is well known to be subject to aggravated forms of the same types of fever that prevail in this country; and Irish writers and practitioners stand preëminent for the ability with which they have written, and the skill they have manifested in the treatment of these formidable complaints. The writings of Stokes and Graves are familiar to all. The writer of the work before us has been educated in the same school, and has enjoyed like advantages with these great masters of our art, in acquiring a practical knowledge of fever; and his work is entitled to rank among the very best monographs on this important department of practical medicine.

The work contains eleven chapters, with a copious index, embracing the general and special pathology and classification of fevers:—Simple continued fevers; Varieties of synochial fever; Typhus and typhoid fevers; Typhoid fever of Crimea; Yellow fever; Pathological anatomy of yellow fever, &c., &c. This will give the reader some idea of the scope of the work. On all these subjects, the views of the author are clear and perspicuous, and abound with suggestions on pathology and practice which are of marked interest to the practitioner, and we therefore commend the work to our readers.

(Continued from page 256.)

THE CLASSIFICATION, DIAGNOSIS AND PROGNOSIS OF TUMORS, FROM
A CHIRURGICO-CLINICAL POINT OF VIEW. BRIEFLY ARRANGED
BY DR. THEOD. BILLROTH. (*Deutsche Klinik*, 1859.)

Translated by G. Baumgarten, M.D.

The adenoids of the breast occur almost in every age from the 12th to the 60th year, in married as well as single women, with or without children. Their diagnosis is occasionally very difficult, especially in the beginning; as long as they are only swellings of the size of a bean or nut, they cannot be distinguished from engorgements of single acini as they often occur in women, (not considering even the period of lactation,) and in younger or older girls—movable painless nodes, of which one can at first give no definite opinion; the progress, only, and the success of resorbent remedies will make it clear, whether we have to deal with a chronic inflammatory engorgement or with a tumor. If the node grows, becomes uneven, lobulated, but remains painless, retains its firm elastic consistence and is movable in the gland itself and under the skin; the diagnosis of adenoid tumor can be made with much probability, especially if its growth is very slow and the tumor occurs in a young person. In older persons such a tumor not unfrequently undergoes a gradual change: it becomes painful, grows more rapidly, becomes very hard in the periphery, soft on the apex and altogether more and more immovable, until finally we can no longer doubt that we have now to deal with a carcinoma, especially if the axillary glands also begin to swell. Such metamorphoses of adenoid tumors into carcinomata do occur and can be anatomically demonstrated. In general, the course of adenoid tumors is favorable, the more so, the younger the individual, and the more fibrous the tissue of the tumor is at the same time; the nearer the interstitial tissue approaches to the colloid, soft or medullary sarcoma, the older the individual, so much the worse is the prognosis; in the first place, local relapses will occur, which then present themselves as pure carcinomata. Formerly, I would not have believed it, that in such cases an adenoid tumor really had been extirpated, had I not convinced myself of

it by my own investigations ; the returned tumor is extirpated, but very soon returns again locally, then in internal organs and in bones—in many cases, passing by the axillary glands, in others, after these also had degenerated into carcinoma. These secondary tumors almost always have a medullary character. In regard to the causes of such carcinomatous degeneration of adenoid tumors, especially in aged women, nothing definite can be asserted ; I believe from some cases I may conclude that grief, cares and poverty can conduce to it, as A. Cooper also teaches. The prognosis of adenoid tumors must therefore always be made with caution, even although in the purest forms the fatal issue is among the rarest, and, as has been remarked, is never to be feared in young persons, unless it be that the tumor had a true medullary character from the very beginning.

Many sarcomata of the salivary glands may also sometimes present a gland-like appearance, but yet this comparison is very far-fetched ; we will speak of these tumors in connection with the soft sarcomata.

2. *The Colloid Tumor, Myxoma, Collonema, Colloid Cancer, Alveolar Cancer.*—Tumors of the consistence and color of boiled glue pertain to the most various tissues and are capable of very numerous combinations. Although they do not, histologically, belong together, (sometimes one is puzzled as to whether they are cartilage, connective tissue, or a secretion,) yet in a clinical regard they form one group, inasmuch as all have a great tendency to return locally, and some of them, also, not seldom spread over the entire organism. In the first place, two forms of these colloid tumors can be distinguished by the naked eye, which by the microscope may be further divided into several sub-species.

(a) *Homogeneous colloid sarcomata* : they are rare in their pure form and always present on a cut surface a number of fine red dots, small extravasations, but otherwise no further structure. They occur more especially on fasciæ, combined with fibroid masses, with soft or even medullary sarcomatous substance ; further, in the mammary gland, combined with adenoid and cystic formations ; also, in the salivary glands, and finally, in the upper maxilla, in combination with fibroid tumor and fibro-sarcoma.

Local relapses are not unfrequent, with more or less dangerous character according to the nature of the combination.

(b) *Areolar colloid tumors*: in these, we see with the naked eye a multitude of white capsules, in which the jelly is inclosed; when this is very fluid, the tumor assumes the character of the cystoid tumor or cysto-sarcoma, as in those growths frequently occurring in the ovary and the thyroid body (as *struma lymphatica* with accidental tuberculisation, calcification, extravasation, etc.)

Colloid enchondromata have almost the same appearance; they can sometimes be diagnosticated as such only by the aid of the microscope; in other cases, there is present besides the jelly a cartilaginous mass, distinctly recognizable with the naked eye. The soft cartilage in this case has by no means always resulted from one that had been firm, by softening, but has been primarily formed as such, the intercellular substance not having acquired the normal hardness. The favorite seat of these tumors is the scapula, the thigh, and the bones of the pelvis; they often cause very obstinate local relapses and sometimes lead to a general development of enchondroma in internal organs.

The colloid carcinomata have smaller, mostly microscopic alveoli, and occur principally in the liver and rectum; they are extremely rare, but finally spread in great number, *e. g.*, as small tubercles over the entire peritoneum. They do not, as far as my experience goes, essentially differ from the colloid enchondromata, except that well formed cartilaginous masses do not occur about them.

3. *Cystoid Tumors and Cystosarcoma*.—By *cystoid tumor* is understood a convolution of cysts, without other neoplastic mass than the walls of the cysts and their contents. In this purest form they occur seldom, and then contain either pure serum or mucus, that may be colored by blood from a light yellowish-red to a deep brown; their occurrence is confined almost alone to the ovaries, the testicles, and the cervical and sacral regions; in the latter case, usually congenital, as so-called *cystic hygroma*. Cystoid tumors do not return, if they can be extirpated completely; only consequent upon a pure cystoid in the testicle have I observed medullary tumors to form in the abdomen.

Cystosarcomata are called those tumors which consist partly

of firm tissue, partly of cysts. Nearly all species of cysts can occur combined with nearly all species of tissues; the nature of the latter determines the prognosis. The luxuriance of the tissue can advance even into the cysts themselves in form of clubshaped, polypous vegetations, or papillary excrescences, especially in the mamma: *Cystosarcoma phyllodes, proliferum Muelleri*. Among the innumerable possibilities of combination, the following are the most frequent: In the mamma—adenoid tumor and colloid tumor combined with cysts; in the testicle—cysts with cartilaginous formations and medullary cancer (occasionally with development of bone, pearly tumors, pigment, muscular fibres, etc.); in bones, especially the upper and lower jaw—firm yellowish-red sarcomatous substance combined with mucous cysts, or osseous cystoids with a little sarcomatous mass on the walls of the cysts, which contain mucus; congenital in the sacral region: sarcoma with cartilage and extensive development of blood-vessels, etc.

4. *Firm Sarcomata*.—The name sarcoma is a most unfortunate choice of the ancients; it is intended to denote "flesh-tumor," but what is to be understood by "flesh" is not clear; later authors would have it signify muscular substance, but then the sarcoma would be eminently rare, and not occur at all in the pure form; it could be diagnosticated only by the microscope. Histologically, we mean at present by sarcomatous tissue one which represents different degrees of development of connective tissue: granulation-like tissue, Virchow's mucous tissue with more or less intercellular substance up to fibrous tissue, tissue consisting of spindle-shaped cells, without intercellular substance (*tissu fibroplastique*, Lebert), or with colloid or fibrous intercellular mass. All these tissues carry the name of sarcoma so long as they grow at random without definite areolar arrangement, only pursuing certain directions of fibres, and sometimes even without these. According to the external appearance I would separate—the *firm*, the *soft*, and the *medullary sarcomata*, of which last will be spoken in connection with the medullary tumors. Generally characteristic of sarcoma is a globular, tuberous form, accurate limitation against the neighboring tissues and almost exclusively central growth of the tumors with the direction towards the cutaneous surface, without transforming the adjacent organs

into morbid tissue, but only forcing them aside,—and the tendency to coalesce with the skin and ulcerate superficially. The consistence, the color, and the character of a cut surface is very variable; the latter is usually homogeneous throughout, without allowing any structure whatever to be recognized with the naked eye.

By *firm sarcomata*, I mean such as have a firm, elastic consistence, dirty light yellowish-red section, that usually becomes darker by exposure to the air, and from which a little opaque serum can be expressed.

These sarcomata occur, in the first place, in *subcutaneous cellular tissue* and in the *cutis*, are here remarkable for their extremely slow growth, and have a lardaceous, wax-colored section; they arise frequently from the fasciæ on the abdominal walls, thigh, (especially in women,) shoulder, and back. The slower they have grown, and the more amorphous their structure, the less noxious are they; their combination with distinct fibroid substance or with medullary mass excites the suspicion of their capacity for local and general relapses. They are, like fibroid tumors, poorly supplied with capillaries, but likewise contain small arteries, from which, when corroded, enormously violent hemorrhages can take place, as in the case of the fibroids.

The *central osteosarcomata*, moreover, belong to this class (*myeloid tumor*, Paget). Their favorite seat is the lower jaw, especially in children; here they occur purest and sometimes combine with development of mucous cysts and of osseous trabeculæ in the sarcomatous mass; the latter is situated in the centre of the medullary cavity of the bone; the cortical layer seems puffed up like a bladder, and rises above the healthy bone pretty abruptly. These tumors of the lower jaw but seldom return if they were thoroughly extirpated. In other bones, *e. g.*, ulna, radius, tibia, though with greater development of new-formed substance, the relations of the latter to the bone remain the same,—yet the tumor itself sometimes changes so considerably by tuberculisation, extravasation of blood-formation of cysts, calcifying and ossifying, and extensive development of blood-vessels, that it is difficult to recognize the original substance of the tumor. These latter sarcomata occur almost exclusively in adults of middle age, and usually necessitate the amputation; metastatic tumors consequent to them are rare.

Tumors, very similar to these central osteosarcomata, are also found on the gums, in old and young persons; here they go by the name of epulis, distinguish themselves by their bluish color, (the result of an abundance of blood-vessels,) and not unfrequently contain osseous nuclei; they are with difficulty removed completely, and hence apt to cause local relapses; in more aged persons they may sometimes also pass into cancrioid tumors.

The *sarcoma of lymphatic glands*, the scrofulous sarcoma (Langenbeck), also belongs in most cases to the firm sarcomata. It begins as a hypertrophic swelling of several groups of lymphatic glands, at first or altogether confined to one region only, especially on the neck or in the axilla. It always affects young individuals, partly scrofulous, but partly also persons apparently quite healthy. While at first, the several knotty, kidney-shaped lymphatic glands are plainly distinguishable, they gradually unite into a firm tuberos convolution, and in spite of all anti-scrofulous and resorbent remedies the neoplastic process advances incessantly. If it is confined to one part, *e. g.*, to one side of the neck, the tumors become so much the larger; if such formations are found at many points, *e. g.*, on both sides of the neck, in both axillæ, both inguinal regions, in the abdomen, etc., the individual tumors do not grow so large. They sometimes exceed the size of a man's head. They are perfectly indolent and usually do not soften. If confined to one part, the tumor may finally cease to grow and can be extirpated with success; but I know of very few cases where such a cessation occurred in the general process that evidently lies at the bottom of this. Most end fatally; the gland-like tubers spring up like mushrooms in all possible parts of the body, at last, too, in internal organs;

liver, spleen—Virchow;) finally, marasmus sets in and the patients die. On a section, the tumors look yellow, like glue, and take a darker hue in the air; from the homogeneous cut surface an opaque serum can be expressed. Only in small children have I seen a metamorphosis and softening of these tumors into perfect medullary mass. Continued use of iodine favors the softening of these tumors and accelerates death, and yet we hardly know what other remedies to apply. The prognosis of these tumors is evident from the described course.

5. By *soft* ("*breitige*"—pultaceous) *sarcomata*, I mean such as

consist of a greyish-red, grit-like, granular, soft pulp, surrounded with firm, tough connective-tissue capsules; the surface of the unopened tumor is tuberos; close to one tumor arises another, and so on; the whole conglomeration, however, can be accurately enucleated from the neighboring tissues, which it pushes aside and causes to be resorbed; although all this can usually be seen only in the extirpated specimen, because the softness and brittleness of the tumor when once cut into in operating renders it often very difficult to perceive its limits during the course of the operation.

As a prototype of this not very frequent form of tumor most of the pseudoplasms of the salivary glands may serve, which commonly, when not combined with cartilaginous or fibrous substance, present themselves as soft sarcomata, in which the pulp may be so soft as to communicate to the previously examining finger the distinct sensation of fluctuation, and the tumor, after being opened, might well be mistaken for an atheroma, from which it differs, however, by the often very complicated organization of its tissue. With these tumors the sack must always be extirpated, for otherwise relapses will be sure to follow. When the tumors develop in aged persons, there is no security against repeated local relapses even after radical extirpation.

On fasciæ and the sheaths of tendons, also, these soft sarcomata occur, but generally combined with medullary tissue; I have seen such tumors, though with partly medullary character, in the bend of the elbow and on the hand; in the former case, the disease having until now returned locally four times, each time after a thorough radical extirpation. The more these tumors assume the medullary character and the sooner they ulcerate, the more pernicious are they; their progress is very much slower than that of medullary tumors, although they perhaps always become medullary in the end, and destroy life by metastasis to internal organs.

6. *Soft Papillary Tumors, Villous Tumors, Villous Cancers, Condylomata*.—They are the same on mucous surfaces, as the horny excrescences on the cutis. The acuminate and the broad condylomata* are papillary proliferations of the mucous

* German authors apply the name *condylomata lata* to the syphilitic "plaques muqueuses," and designate as *c. acuminata* the (non-syphilitic) "condyloides"

membrane, which, as is well known, develops more especially at those points, where the external skin passes into mucous membrane; † they pertain exclusively to the syphilitic process. Besides, villous excrescences occur on the mucous membrane of the nose, of the urinary bladder, on the gums (very rarely), and on the mucous coat of the stomach. In all these latter cases, however, the villi do not constitute the only morbid product, but they are lodged either upon the substance of a tumor, or upon a tissue which underwent a morbid degeneration. This tumor-substance almost invariably bears a cancrroid or even medullary character, and thereafter must be determined our prognosis; usually these villous cancers, which operate destructively alike upon the surface and in the depth, not only possess in a considerable degree the power of returning locally—especially as their extirpation can hardly ever be made radical—but the nearest lymphatic glands also are not unfrequently affected; yet they are but seldom followed, as far as my experience goes, by internal metastases, the cause of which partly lies in the dangerousness of the localities where these tumors develop.

III. TUMORS WHICH ALWAYS RETURN LOCALLY, THEN APPEAR IN THE NEAREST LYMPHATIC GLANDS, AND FINALLY IN INTERNAL ORGANS.

This group of tumors contains that which has ever been called Carcinoma and Scirrhus. In modern times the Cancroids, or epithelial cancers, have been separated from the carcinomata; they possess, in fact, many characteristic traits even in clinical respect, so that we have to consider the following three forms of tumor:

1. *Carcinoma (carcinoma simplex*—Foerster).—It is found especially in the mamma, and occurs ordinarily in women between thirty and sixty years of age, seldom sooner, but not so seldom later. A hard node—painful often from the beginning, in other cases not till later—develops in the mamma, at first slowly, then more and more rapidly. The swelling soon becomes immovable,

of the French. (Cf. Virchow's Cellular Pathology, tr. by Chance. London, 1860; note on page 245.) The author's assertion at the end of the above sentence probably has reference only to the broad condylomata.—Ta.

† Broad condylomata have recently been found in the larynx also. (V. Deutsche Klinik, 1860, No. 48; and Virchow's Archiv. xx. 402.)—Ta.

coalesces with the pectoral muscle and with the skin, and gradually extends more and more, new nodes being continually added to its periphery. Fleshy and lean, married and unmarried, feeble and healthy, poor and rich women, with or without children, all are in like manner exposed to this disease. When the tumor has invaded the vicinity of the nipple, this is drawn inward; sometimes it secretes a serous or sanguinulent fluid. Soon after this, swellings appear in the axilla, which rapidly enlarge and are always larger than according to the examination they seem to be; seldom the cervical glands are affected. Usually only one breast is diseased. In other cases, the entire mamma begins to swell, gradually becomes hard as stone, the skin thick, cedematous. Blue veins, however, may traverse the skin in *all* anywise large and firmly coalesced tumors of the breast; they are no sure sign of carcinoma. In still other cases, a movable, painless tumor has long existed, but afterwards begins to pain, to grow more rapidly and to become immovable; the glands in the axilla now swell, and the tumor formerly diagnosticated as adenoid tumor, turns out to be carcinoma. I have never seen, that women under the influence of this neoplastic development had been materially affected in respect to their general health, up to the described stage of the process; they suffer nothing but the lancinating pains, occurring particularly at night, but which are usually tolerable, and the tumor, although often very extensive in breadth, seldom obtains in this (not yet softening) stage the size of a child's head. Hence all things indicate, that hitherto we had before us a local affection; thus it is regarded in modern times by most authors. This mode of view is very important in reference to therapeutic, and especially operative action, as we shall see below.

In the operation of these tumors, more even than in the previous examination, we perceive that the tumor cannot be enucleated from the tissue of the mamma and extirpated alone, but that a part of the healthy structures must be removed with it, in order to take away with certainty all that is morbid. The examination of the specimen further shows that the diseased tissue is pretty accurately marked against the normal, but both are so intimately united one with the other on their borders, that even in the removed specimen they cannot be separated. The form of the tumor is very uneven, especially on the periphery: a multitude of

processes, appendices, white ramifications enter the adjacent fat, and if the skin is not yet entirely coalesced with the carcinoma, a number of white cords often run towards it. This mode of connection of the tumor with the adjacent tissue is to me one of the chief criteria of carcinoma. Cutting into the tumor now, we find the surface of the cut of a light, pale-reddish color, granular; pressing it or drawing the scalpel across it, we see a soft milky pulp expressed from it. Sometimes the cut surface presents yellow anastomosing figures, looking cheesy like tubercular matter; they are masses of cells, undergoing tubercular or fatty degeneration, and have, according to my experience, no especial influence on the prognostic importance of the tumor; J. Mueller has advanced a separate species of carcinoma after them, the *carcinoma reticulare*; we mention this only in deference to the unsurpassed anatomist and physiologist.

If the carcinomata are not extirpated in this stage, one tuber now begins to become more prominent, the skin on its apex is traversed by fine, very narrow, bluish-red vascular anastomoses, becomes shining, very tense and finally ruptures with a fissure,—or a vesicle arises on it, with whose rupture the first excoriation manifests itself. The prominent knot, while pressing forward, has become very soft, almost fluctuating, and the pains in it are sometimes pretty severe. If the tumors are operated upon in this stage, the soft tubers are seen to consist of a white medullary mass, that evidently resulted from the carcinoma, (usually, as we know from the microscopical examination, by rapid molecular disintegration and fatty degeneration, and also by an abnormally rapid increase of the cells.)

The excoriation on the softened point, small at first, rapidly extends in surface; no sooner is the very thin cutis destroyed than the soft pseudoplastic masses burst forth and a fungous ulcer is formed, with an ichorous discharge. If the softening still remains localized for a time, the ulceration remains the same; the white, fungous, luxuriating substance sloughs off gangrenous, and a crater-shaped or at least excavated ulcer, with rampart-like elevated margins, results. If the softening spreads rapidly, the ulcer also becomes large and larger, while at the same time the tumor gains in circumference and depth. Although the fungous walls around these ulcers are pretty high, yet they seldom acquire

such a size as in an ulcerating primary medullary tumor. In this stage the patients suffer less from pain in the tumor than from the dreadful ichor the ulcerating surface secretes; hemorrhages, that often occur without any cause whatsoever, sometimes after a slight friction or blow, consume the strength of the patient more and more rapidly. The increasing swellings of the axillary glands gradually coalesce with the mammary carcinoma, and the ulcerating surface extends upon them also. Violent neuralgic pains in the respective arm, intense œdematous swelling of the same,—consequences of the compression of the nerves and veins,—increase the sufferings of the unfortunate patients, for whom there is now hardly any other remedy than morphine, and morphine again.

This highest degree of local development of the carcinoma is not brought about, however, in all patients. The consistent progress of the carcinoma in depth can lead to the destruction of the ribs, finally to a perforation into the cavity of the pleura, and the patients have the good fortune to die of pleuritis; but sometimes not even this is granted to them: while the carcinoma increases in depth, a lingering local adhesive pleuritis is already established and the carcinoma passes into the lung without endangering life. Finally, the strength fails, which for an astonishing length of time resisted the ichorous discharge of an enormous ("*tellergrossen*"—of the size of a plate—Tr.) ulcer, and the patients die of exhaustion. In still other cases, the local affection obtains only a very limited extension; soon emaciation comes on, pains in the hepatic region, icterus, slight pleuritic irritation, sometimes chills with irregular intermissions, sweats, pains in the joints, a continued fever,—in short, symptoms as in a slow pyæmia, an eminent emaciation in a short time, horrible disfigurement and distortion of the features; in otherwise robust individuals the termination is long delayed, to the horror of their friends, until finally the often implored death relieves the sufferers of their unspeakable distress. It is always melancholy for the physician to look upon patients with incurable chronic affections without being able to help otherwise than by a permanent alliance with the brother of Death, Sleep, artificially induced by narcotics; but yet the last end of phthisical patients has always been to me rather less terrible than that of carcinoma patients. Both dis-

eases are extremely popular, and although one endeavors to conceal from the patients the nature of their affection, they usually do know it nevertheless. The good humor of phthisical patients is well known; a patient with carcinoma, but especially a woman with carcinoma of the breast, accurately observes her state, from the appearance of the first tubercle of the mamma forward, and she is much more conscious of the frightful knowledge that she is affected with an incurable evil, than a phthisical subject, and this knowledge becomes more and more prominent, particularly towards the end of the disease. Suicide in a consumptive patient is something very rare; in those with carcinoma it occurs more frequently; it is not without danger to allow passionate, excitable men distinctly to perceive that they are incurable. I witnessed a case, where a patient with carcinoma of the lower jaw, not susceptible of an operation, shot himself when he was convinced that he could not be operated upon, although he was, as far as possible, put off with the encouragement to be patient and to hope.

Let us now turn to the *post-mortem* appearances, which present themselves in subjects the victims of carcinoma. Sometimes we find no tumors at all in internal organs, particularly when the local process had been very extensive and death resulted from the ulceration and the exhaustion of the vital powers. In other cases of mammary cancers, carcinomata are formed in the liver especially, and that too often to a large extent; also in the lungs and upon the pleura, where they not unfrequently have the character of cicatrix-like white streaks; sometimes, finally, in bones. All these secondary carcinomata present themselves as soft white tumors, as medullary fungi; the firm granular carcinoma, as we have just described it in the mamma, does not easily occur in internal organs, whether primarily or secondarily. Hence we see that tumors of medullary character can combine with carcinoma, partly arising out of the latter, partly accompanying it in other organs,—just as different forms of sarcoma may be followed by medullary tumors. Nevertheless the medullary tumor must be separated from the carcinoma, because there are tumors which from the beginning are purely medullary, and usually, too, take a somewhat different course from that of carcinomata; when the latter soften down to a medullary mass, they

thereby acquire also the clinical properties of medullary tumors, *i. e.*, they attack internal organs with great certainty and rapidity. Concerning the duration of carcinomata of the breast, this is very variable, the average being from about two to two and a half years: I believe to have observed that the course is the more rapid, the younger the individuals are and the further the softening has progressed; but many cases cause the observer to doubt such general prognostic signs very much. I have seen the case of a woman of twenty-four years, who died after the extirpation of a still hard carcinoma, as large as a hen's egg, of six months' standing, and where several tumors already existed in the liver; and other cases, where in older women with fungous, ulcerating carcinomata, the first development of which occurred five or six years previously, no secondary cancers were found at all in the *post-mortem* examination. But, on the whole, these are exceptions to the usual course.

As to carcinomata in other parts of the body, they are very rare in the subcutaneous cellular tissue; they occur in the upper maxilla with great capacity for local relapses and with tumors of the lymphatic glands on the neck, hardly ever attacking internal organs, but usually becoming fatal by ulceration, or by perforation of the base of the skull. The carcinomata of the testicle are seldom observed as such, but usually as already softened, medullary tumors; only when there is occasion to extirpate them when still very young, which occurs rarely because of the difficulty of diagnosis during the first beginning of an induration in the testicle, we sometimes find carcinomata, light yellowish-red and granular on a section, that distinguish themselves especially by a strong tendency to tubercular metamorphosis. In other cases, the tumor begins directly as a medullary fungus. Carcinomata occasionally occur in many other localities, but the above are the most frequent. In the mamma, they often combine with scirrhus, of which more shall be said under that head.

It seems to be doubtless, according to the observations now existing, that the predisposition for carcinomatous disease is hereditary, although in a less degree in comparison to the predisposition for tuberculosis and scrofulosis. The being hereditary, however, is no proof whatever that carcinosis is primarily a gen-

eral disease; there are many local affections, *e. g.*, moles, hare-lip, which are also hereditary.

The question, whether carcinomata should be operated upon, and when it is still prudent to undertake the operation, has been answered very differently at different times. Starting with the opinion, that the first tumor is already the product of a general affection, which is presupposed to exist in the apparently healthy individual, one will be glad that the morbid matter has at last been localized, and will not extirpate the growth to avoid metastases to internal organs. The only observation that could be adduced in favor of this view, is, that sometimes the metastatic tumors are so much the less extensive the larger the primary tumor is. But this by no means always happens. Formerly, it was especially urged in favor of this opinion, that the lymphatic glands swell more rapidly when the tumor was removed early; this opinion, I believe, is based on doubtful observations; for it is impossible to determine, whether small engorgements of the lymphatic glands did not already exist at the time of operating, inasmuch as, *e. g.*, in primary cancers of the mamma, the glands, which are situated underneath the pectoral muscle towards the *fossa Mohrenheimii*, cannot be felt in most cases, even if they have acquired double their normal volume; one will be convinced of this when beginning to extirpate the axillary glands,—there seems to be no end of the packs of glands, they are more numerous than after the examination could be expected. I am therefore of the opinion, that the swellings of the lymphatic glands, which seem to develop particularly rapidly after the extirpation of the primary tumor in the breast, already existed previously to a great extent. That in ulcerating or in occult carcinomata so-called symptomatic enlargements of the lymphatic glands do occur, I by no means doubt; observation often enough shows, that enormous ulcerating fungi exist somewhere on the body, while the lymphatic glands are not swelled in the least; ulceration of carcinomata and medullary fungi, by itself, does not create any sympathetic enlargement of the lymphatic glands; wherever the latter exists, it already has the import of small cancers, even though—histologically—nothing carcinomatous can as yet be demonstrated in them.

The belief in the primary existence of carcinomatous disease,

and in the development of the carcinomatous tumor as the product of the former, has in latter days been placed in the background. Unbiased observation makes us perceive in most patients with carcinoma, at first, nothing else whatever but the local disease. Persons of the most various constitutions, with the most various accidental chronic affections, may be attacked with carcinoma; tuberculous individuals, also, are not excluded, although less frequently affected by it; there is no symptom of a general affection of the body, be it ever so slight, that were common to all carcinomatous patients in the commencement of the disease. It is often enough found mentioned, a carcinomatous patient wore the expression of a deep-seated affection, a sallow complexion, that he was emaciated, with withered skin and muscles; but all this is true only of the end of the disease; in the beginning, we usually have before us healthy, often surprisingly robust persons, who present nothing morbid except their tumor. Hence the conclusion is near at hand, that *first the tumor, and then the carcinomatous disease*, is developed. This view is confirmed by accurately following up the course of the evil; we see, as it were, how the local disease extends; the adjacent parts become affected, then the glands, and only after this a general affection of the body is brought about.

This last described view of the cancerous disease, which now probably is the most generally accepted, must in consequence lead to other therapeutic measures. The object is, as early as possible to destroy the focus, from which the infection of the lymphatic glands takes its origin, and if possible to remove these also in order to retard the infection of the body at large. I do not doubt but that the adjacent tissues and the neighboring glands are infected by the carcinoma by a sort of direct contagion, and that the infection of the fluids of the whole organism originates from the lymphatic glands, in which case, moreover, the contagious matter undergoes an often protracted stage of incubation; but sometimes the contagious matter seems to be held completely back in the glands as by a wall; on this subject we shall say more in connection with the canceroid. This course of the infection of the tissues and the organism is true, however, only in reference to carcinoma and canceroid, but seldom applicable to the medullary tumors and to the sarcomata, when these

occur metastatic; this is one reason also for separating the medullary tumors from carcinoma, of which I shall likewise speak more fully below.

2. *The Cancroid (Tumor)—Carcinoma epitheliale—Cauliflower-growth.*—In general, all the more important points that we stated in regard to carcinoma, are also applicable to the cancroid tumor, except that in patients who perish by it, tumors very seldom form in internal organs, since the great expansion of the local tumors and those of the lymphatic glands terminates life by its location and the destruction of parts necessary for life, as well as by exhaustion of the strength.

The seat of these tumors is more especially:

(a) On the head and neck; namely, in the lower lip, the mucous membrane of the mouth, on the gums, cheeks, the upper and lower jaw, in the neck deep between the muscles, in the tongue, larynx, œsophagus, on the ear, less frequently on the scalp and forehead. Those who are attacked by it are particularly aged persons, most frequently individuals (especially men) between forty and sixty years old; in some cases, also, I have witnessed in the 20th, 24th, and 28th year of age, already, enormous tumors of this kind on the tongue and lower-jaw. The tumor commences at first either as an indolent node in the tissue, or as an exfoliating excoriation, or as a warty excrescence; in the two latter cases soon associated with induration and rapid fungous ulceration. The bones, *e. g.*, the superior and inferior maxilla, can be totally infiltrated and destroyed by the cancroid, and no tumor of any considerable size be visible; but the teeth fall out, and considerable pain soon manifests itself. The upper jaw is usually primarily affected; the lower is oftener surrounded by the cancroid which takes origin from the gums and periosteum. Cancroids, which begun as nodes, often exist on the neck and the tongue a long time before they ulcerate, but on the lip the ulceration appears soon; the latter is generally very fungous. The exuberating mass here seems to possess a little more vitality than in the carcinoma. If the ulcerating surface be pressed laterally, a number of white plugs can usually be squeezed out, as out of comedones. Lastly, even the hardest swellings of this kind may soften, while growing larger and larger, and this softening can advance to such a degree that the tissue is reduced to a

puriform, emulsive fluid and the ulceration seems like the evacuation of an abscess. Hemorrhages from cancrroids are less frequent than from carcinomata, yet the secretion is just as bad, and the ichorous discharge is usually tinged with blood. Pretty soon the submaxillary glands enlarge, and grow, as thick, knotty tumors, with astonishing rapidity, until they surround the neck from one side to the other and threaten to suffocate the patient. In this state the patients usually die of exhaustion, whether operated upon or not, and when the *post-mortem* examination is made, we find but very seldom tumors in internal organs; that the latter occur at all, we only know from three cases reported by Virchow. In twelve or fifteen cases of the kind, which I dissected, I have never found internal tumors. Nevertheless, the sufferings of these patients are not less fearful than of those with carcinoma. The certain, and often very rapid relapses after the necessary operations which sometimes hideously disfigure the face, and the enormous local development, usually accompanied by violent pains, are to the patient as well as to the attending physician more terrible almost than if there were hope soon to see the poor patients' sufferings ended by the formation of internal tumors; but when the individuals are otherwise robust, as is generally the case, the torture sometimes lasts dreadfully long. The whole tongue, the pharynx, upper and lower jaw, and the lymphatic glands, all will join in one mass of tumor; the patients can neither live nor die, and sometimes are condemned for months yet to lead a miserable life, half starving and half suffocated.

(b) Another region of the body, which is most frequently visited by the cancrroid, is that of the genital organs and anus. The cancrroid tumor of the penis occurs in the shape of condylomatous productions on the prepuce, or as an induration on the glans, and can attain enormous dimensions. On the scrotum it occurs especially in English chimney-sweepers, as so-called "chimney-sweeper's cancer," caused, it is said, by the soot of pit-coal. The cancrroid ulcerations also spread upon the labia minora, clitoris, and from thence up into the vagina. More frequently than in all other localities, the cancrroid is observed on the *portio vaginalis uteri*, where it luxuriates in the form of warty, fungous excrescences, and secretes a sanguinulent discharge of penetrating, offensive odor; it is known under the name of *cauli-*

flower-growth. The cancrroid tumor of the rectum, generally known as *strictura carcinomatosa*, in most cases attacks the entire circumference of the rectum, and is seldom confined to one or the other side. Imperceptible at first, it finally causes the most violent pains, usually ulcerates and is covered with fungous granulations, and afterwards extends to the bladder, the prostatic gland and the sacrum. It has struck me, that patients with *carcinoma recti* were affected at an especially early date with debility, emaciation and a sallow complexion. Seldom the anal orifice is affected, usually the cancrroid begins from $\frac{1}{2}$ –1–2 inches higher up.

I believe that the experienced surgeon will agree with me, in asserting that the operation in the last named parts allows of a comparatively favorable prognosis, *i. e.*, that the local relapses of a cancrroid of the penis and the labia pudendi, of a carcinoma recti, of a carcinoma epitheliale uteri, do not occur as rapidly as after the extirpation of the same tumors in other localities, provided that the extirpation could be made complete. The swelling of the lymphatic glands, too, develops more slowly. All these patients finally die of the sanious discharge and the hemorrhages, but here also we hardly ever find tumors in internal organs.

Finally, we have the cancrroids in the integument of other indefinite parts of the body; I have seen them extirpated from the hand, foot, and leg, but cannot state any thing more definite as to their course. On a section, the cancrroid tumors appear perfectly white and have a soft granular cut surface; they can sometimes be torn in certain directions, and, in drawing the scalpel over them, emit a milky, seldom an opaque mucous pulp. On the boundary of the healthy structures, the cancrroid substance is not seldom seen advancing into the tissues in the form of white pegs (*Zapfen*). Very fresh cancrroids, and newly returned tumors, appear purely lardaceous, dark-yellow, with little serum on the surface of a cut. The fungous ulcerations sometimes present on their section a medullary character.

3. *Scirrhus, Fibrous Cancer, Atrophying Cancer.*—While in the beginning of this century the appellations *scirrhus* and *scirrhus* were still applied to almost all hard, chronic indurations, the capacity of this designation has now been reduced to

one form of tumors, which, as far as my observations extend, occurs only in the mamma and in the skin.

The scirrhus of the *mamma*, or the atrophying (*atrophierende*), cicatrizing cancer of the breast, is properly no tumor, but an induration, with simultaneous atrophy of the organ. It is, so to speak, the mildest form of carcinoma—if all the tumors belonging to this group may be designated as carcinoma, (*carcinoma simplex, epitheliale, cicatricans*.) The scirrhus develops mostly in lean women between fifty and seventy years of age. The already very atrophic, but soft mamma indurates at one point, and this induration gradually coalesces with the skin, which is very much contracted in the form of a navel, and corrugated like a cicatrix. Usually the progress of this induration is accompanied by lancinating pains. Small, but very hard tubercles, of the size of a pea or bean, soon appear in the axilla, sometimes with contracting scars in the skin; these can extend into the depth, so that the arm becomes painful and œdematous. When in these indurations of the breast ulceration is brought about by epidermidal necrosis (*Verschorfungen*), the ulcer remains flat and secretes little serum. The scirrhus in its purest form admits of a very passable prognosis, the patients, operated or not operated upon, may live for ten or twenty years after the development of the first induration; and as this disease occurs only in aged women, most of them will die of other accidental diseases. Rarely the scirrhus remains in a pure form, but is complicated with carcinoma. While a part of the gland becomes scirrhus and atrophied, one lobule will give origin to a carcinomatous swelling, which then takes its usual course. Although in this case the infection of the body takes place far more slowly than in carcinoma, yet finally it runs its course, and a little later the patients do not escape their terrible end. After the extirpation of the entire scirrhus, atrophied breast, sometimes no relapses occur at all, or else carcinomatous swellings are developed in the cicatrix or in the axillary glands at a very late period.

In the examination of extirpated scirrhi of the mamma, one is sometimes astonished, to what a minimum the whole gland, once so active, can be reduced; in one case which I examined, it scarcely equalled the size of a dollar (*thaler*). In the examination from without (*in situ*—Tr.) one can form no very accurate

opinion of the degree of the atrophy, because an enlargement of the *panniculus adiposus* replaces the want of glandular substance, and, in view of the age of the patient, the form still seems unchanged.

The examination of extirpated scirrhi always shows, on a section, a preponderance of cicatrix-like tissue of the firmest texture, grating under the knife (*cancer ligneux*—Velpeau); near the nipple the larger lactiferous ducts sometimes remain distinctly visible as prominently marked white cords, or perhaps filled with a cheesy, granular, yellow pulp. Near them we not unfrequently find a light brownish-yellow firm mass of a lardaceous gloss, that forms a knot on the margin, and from a cut surface of which a little serum only can be scraped off with difficulty. (*Cancer lardacé*—Velpeau.) From this yellow lardaceous infiltration the scirrhus always, I believe, takes its origin, although we do not in all cases discover it in larger masses; and it is probable also that from it a carcinomatous node may arise. It seems to me to be an ill-developed, yet never unsuspicious carcinomatous infiltration, the presence of which in larger quantities should always lead us to suspect an inclination towards carcinoma, and therefore, possibly, more rapid relapses. There is still another modification of the scirrhus of the mamma, which may occur when it affects the entire gland, or both, and especially the skin; then innumerable, gradually coalescing, flat swellings arise in the skin, and the latter assumes a brown-red color, shining as if indurated; without any very perceptible intumescence, sometimes with violent pains; the entire anterior and even the lateral surfaces of the thorax are surrounded as by an armor, (*cancer en cuirasse*—Velpeau,) so that the rigidity of the skin (which may affect also the intercostal and pectoral muscles so as to result in their complete atrophy) can even disturb the respiratory movements of the thorax. In these cases an operative act must not be thought of.

The scirrhus of the *skin* occurs likewise only in aged persons, and always appears as an ulcer. Usually it begins with a yellowish, exfoliating spot, sometimes with a low production of warts; soon after, a small shallow ulcer is formed, with infiltrated, extremely hard margins; this never extends much in depth, but expands in superficies. The base of the ulcer ordinarily is

yellowish-red, smooth and shining, with a little serous secretion, sometimes a thin discharge forming scabs upon it. Pains are almost never present. Sometimes the ulcer cicatrizes spontaneously on one side of the margin or in the centre, while in other directions it extends; the increase of the *ulcus rodens* or *cancer cutaneus*, as this affection is customarily called, is slower than that of any other ulcer; in one case it had, in seven years, acquired no more than the diameter of one inch. Its principal seat is on the nose, glabella, forehead, in the temples, on the eyelids, cheeks and ear. Very seldom the affection is transferred to the lymphatic glands; I have observed this only twice; there is so little occasion to make *post-mortem* examinations of such persons, that it is difficult to judge whether this form of scirrhus in the skin can become dangerous by infection of the body; I believe not. In one case, where death ensued upon the extirpation of such an ulcer, I found no tumors whatever in internal organs. I have long hesitated, whether it would not be better to designate it as *lupus senum*; but yet the extremely slow course and the cicatrizing character of the ulcer, together with observations of cases where this disease was combined with canceroid tumor and accordingly took a more rapid course, induce me to consider the *ulcus rodens* as a true *scirrhus cutis* and to parallel it with the *scirrhus mammæ*.^{*} After the extirpation, the pure, very dry *cancer cutaneus* but very seldom returns; but if the walls of the ulcer were very thick and show a section like that of cancer, while in the simple cases they have a lardaceous aspect, a more rapid course may be prognosticated.

If I may be allowed, at the end of this group, which unfortunately contains the most frequent tumors, to add a few general remarks on their operative treatment—I consider it as undoubtedly correct, according to the observations we possess at present, *to extirpate all carcinomata which can be radically extirpated without direct danger to the life of the patient.*

^{*} Cf. the report of J. Hutchinson on forty-two cases of rodent ulcer in the *Med. Times and Gazette*; H. regards it as "very nearly allied to cancer," but would reject the name of "cancer of the skin," and prefers to call it rodent ulcer. (Vid. *Amer. Journ. Med. Sc.*, January, 1861, p. 272.)—Ta.

If lymphatic glands are already swelled, these must be extirpated with them; if this is impossible, then indications for the extirpation of the primitive tumor are only exceptions, such as violent hemorrhages, excessive pains, enormous discharge from the ulcer. In such desperate cases, we may sometimes, by a — perhaps very bold—operation, obtain relatively favorable results. If the patients overcome the first shock of the operation, they sometimes begin once more to revive when freed from the carcass they carried with them, which excluded them from all human society by the pestilential atmosphere that always surrounded them. Here, in Berlin, where carcinoma patients are often sent whom one must regard as victims of death in a few weeks, I have witnessed examples of such patients leaving the hospital in the belief that they were completely cured. The new invigoration, it is true, does not last long; yet it is always gratifying in such a disease to be able to help for a time at least. Unfortunately, in most cases, where considerable irremovable tumors of lymphatic glands already exist, the primary carcinomata themselves no longer admit of an operation. Then, a local remedy remains to us, namely, the *ferrum candens*, which in these very cases sometimes has wonderfully beneficial effects, and, for the weal of the unlucky patient, should never be neglected, but used to afford him at least some temporary relief by the destruction of the ulcerating pseudoplasm. *I regard it as a duty earnestly to advise every patient with a removable carcinoma or cancrroid in favor of operation, and I regard it as harmless also to remove a scirrhus of the breast or skin at the request of the patient, if the latter is not too old, and otherwise of a strong constitution; for, to very aged persons, a simple confinement to bed for some time is not without danger.* I would not advise the operation of a scirrhus, and would extirpate it on the face only when it is possible to do so without a consequent extensive plastic operation. Such operations sometimes indeed succeed unexpectedly well, but an old withered skin does not bear any great locomotion; union by first intention frequently does not occur, the wounds heal slowly, and the patients suffer for an unproportionally long time after the operation. Here it depends altogether on the individuals and on the seat of the disease. Experience from a greater number of cases, only,

will indicate the final decision as to what to do and what to leave undone in the individual case.

IV. TUMORS WHICH USUALLY SOON RETURN LOCALLY, AND RAPIDLY
EXTEND UPON INTERNAL ORGANS.

1. *Medullary Tumors, Medullary Sarcomata, Medullary Carcinomata—Fungi Medullares* (Encephaloid—*Tr.*)—By these names, we designate tumors of a very soft consistence and an encephaloid appearance on a section. The color may be changed by gangrene of the substance of the tumor or by extravasations of blood; but originally the tumors are of a pure white color, usually very deficient in blood. Seldom only an especially prominent production of vessels combines with their development, so that the tumors obtain a blood-red color, (*fungus hæmatodes*,) and then, of course, the similarity to the substance of the brain disappears.

I find that, aside from their anatomical distinction, these medullary tumors present so many differences from carcinomata, that I have therefore separated the two altogether. Various sarcomata, adenoids, carcinomata, can combine with, or be transformed into, medullary fungus, but there is also not an inconsiderable number of cases, in which the medullary tumor appeared primarily as such. I will endeavor to characterize these cases in the following:

The medullary tumor is developed only in young persons and children, from the first to, at most, the fortieth year of life, most frequently between the tenth and twenty-fifth. Generally, perfectly healthy persons are affected, but emaciation and the expression of a serious affection sometimes make their appearance after a short time already. The most frequent primary seat is the bones and periosteum: femur, tibia, especially the knee-joint, more rarely the region of the hip and the tibio-tarsal joint, the tarsal bones, the hand, forearm, scapula, upper maxilla, and cranial bones. Fasciæ and the sheaths of tendons, the subcutaneous cellular tissue, and the muscles, are likewise fit ground for medullary tumors to grow upon. In the testicles, also, and in the mamma, the medullary tumors occur; seldom in the rectum and the neck of the uterus. They grow very rapidly, the skin

covering them soon becomes red, and fluctuation appears very distinctly, so that the mistaking it for an abscess is excusable. With the increase of the tumor the skin gradually becomes thinner and soon begins to ulcerate. Now the tumor grows more and more rapidly, the new-formed masses sprout forth in abundance, and are laid over the sound parts like mushrooms. The fungus assumes on the surface a blackish-green color and secretes little; but small shreds of gangrenous tissue are continually sloughed off. If the tumor be examined after the extirpation or the amputation of the respective limb—(a resection can but very seldom supply the place of the latter, on account of the accompanying considerable destruction of the soft parts)—the diseased parts are generally found separated from the normal by a sort of capsular investment of the fungus, like a sarcoma, to which it presents more similarity in this respect than to carcinoma. Very rarely the respective lymphatic glands are swelled in cases of medullary tumors; in many instances they are not enlarged at all during the entire course of the disease, but they can also become the seat of a relapse, unless—which is more frequently the case—the tumor returns on the stump or in the cicatrix, often while the wound is still in the progress of healing. Cases occur, in which after the first or second operation the morbid process makes a pause of some months, and the patients regain their strength surprisingly; one is in hopes to have been mistaken in the diagnosis; but afterwards these patients also soon perish by it. Usually, signs of the formation of tumors in internal organs occur already, while we are yet considering whether a second operation is practicable. The ulceration of the external relapses accelerates the decline of the strength, and the patients sink rapidly, until death relieves them of their sufferings. The mean duration of the whole course of the malady is from one to one and a half years. In case of medullary tumor of the testicles, the retroperitoneal lymphatic glands almost invariably become the centre of development of enormous secondary tumors. Tumors of this sort in bones not unfrequently omit to touch the lymphatic glands in their further progress, and nearly always cause metastases in the lungs. The primary medullary tumor in bone is not seldom traversed by osseous spiculæ, especially if it arises from the periosteum of the tibia or femur.

Inasmuch as the general infection of the body, with these tumors, can ensue without the lymphatic glands being affected, as has been observed, one might much sooner consider the dyscrasia as the primary affection in these than in the case of carcinoma; yet, when seeing patients with medullary fungi, and having occasion to notice that, in spite of largely developed tumors, they have a fresh, flourishing appearance, I believe one will incline as well towards the opinion, that the tumor itself is the focus, from which the contagion gradually radiates over the body. Medullary tumors also occur congenital, *e. g.*, as *tumores coccygei*.

The powers of combination of the medullary fungi with other tumors are very manifold. In the testicle, ovary, and mamma particularly, the most various tissues, especially cysts, cartilage, bone, muscular fibres, etc., are developed in connection with medullary tumors. The most frequent combination is, as we have repeatedly stated, that of carcinoma or canceroid tumor with the encephaloid, the former assuming the character of the latter; the prognosis then holds a mean between the two forms, but there is so little room for a difference between the prognosis of the one and the other, that it can only be stated as a general proposition, that tumors combined with medullary masses allow us to expect a more rapid general infection, while in case of pure carcinoma or canceroid we must rather count upon the local development and tumors of lymphatic glands.

2. *The Melanotic Tumors, Carcinoma Melanodes, Malign Melanoses.*—The tumors are easily recognized by their dark bluish or brownish-black color. We exclude, for the present, the congenital, so-called liver-spots and the larger pigmented moles; and the yellow and orange pigmentations of soft sarcomata, caused by extravasated blood, are also omitted here; but we understand by melanotic tumor one which is remarkable for an intense dark pigment, developed at the same time with the new-formed tissue. Tumors of this sort are not frequent, and usually commence as a black spot, appearing like an ink-stain, or as a circular piece of skin painted with sepia. This spot gradually becomes elevated, a more or less prominent tumor, which, however, expands principally in surface, sometimes by the formation of new isolated spots around the first tumor. Soon the black growth begins to ulcerate, now extending more as a shallow ulcer, now

as a fungous excrescence. The favorite seat of these black tumors is the skin and subcutaneous tissue, particularly on the feet and hands, but they also occur occasionally in many other places, on the skin of the chest and abdomen, in the axillary glands and the testicles, rarely in the mammary gland.

Another mode of development of melanoses is that from pigmented moles; a liver-colored or black mole gives rise to itching, is therefore scratched, begins to form a scab, enlarges and gradually becomes an ulcerating tumor. This has been repeatedly observed by Langenbeck, and I have once seen this mode of development myself.

The extirpated tumors are soft, externally of a dark-bluish, internally of an intense bluish-black or brown color; the surface of a cut yields a fluid that could be used for painting, like sepia. Spread on paper in a thin layer, it has a light-brown color, and preserves for many years. In some cases, we find in the interior of the tumor partly a soft black mass, partly white medullary substance, sometimes also in part a substance of rather light brownish color. The black spots in the skin appear on a section as a simple line; they do not extend far in depth. The tumors are by their very color limited precisely against the normal tissue.

The course that melanotic tumors run, has the greatest similarity to that of the medullary fungus, only that it is sometimes still more rapid, and that, in general, the black tumors occur in older persons, at least beyond the 30th year of life. Primary pure and complete melanoses are followed secondarily by the same tumors; if the primary tumor was melanotic only in part, the secondary growths may be perfectly medullary, white. Peculiar to the melanotic tumor is an often extremely numerous distribution over the entire surface of the body; hundreds of black spots or bluish swellings may arise in the subcutaneous tissue in such an extent, as otherwise hardly ever occurs in carcinomatous or medullary tumors.

The question, whether intercourse with patients suffering from carcinoma, canceroid, scirrhus, medullary cancer or melanosis, can act contagiously upon healthy persons, must be negatived emphatically. Another, as yet little ventilated question is,

whether the said tumors are inoculable. This has so little practical value, except perhaps in regard to *carcinoma uteri* and *carcinoma penis*, that it has seemed little called for to make experiments on this subject. I have twice inoculated the ears of rabbits with the fresh, warm juice of melanotic tumors, but up to three weeks after the operation nothing was visible. Locally, there was not the slightest reaction; and in the dissection of the animals, which I used for other investigations, nothing abnormal was found. These experiments, however, even if they were made more extensively and always with negative results, could only prove that the cancer of man cannot be inoculated upon animals. Moreover, it must be taken into consideration, that even if the matter does take effect, a longer stage of incubation must be waited for. It would not be uninteresting to pursue these experiments on animals still further.

The classification of tumors herewith concluded, has, like every essay of this kind, its great imperfections, I well know; but as the above synopsis corresponds to observation and to practical wants, as I hope, it thereby accomplishes that purpose, which every classification of diseases can only have, namely, to facilitate the mutual understanding of colleagues. Many will reject the principle of classification; I am aware myself, that much can be said against it; but that for practical medicine, without detriment to science, the practical points of view, *i. e.*, those derived directly from clinical experience, the observations at the bedside, must always be placed in the foreground,—is a principle the physician should never lose sight of. I believe, that it will favor the popularity of the four groups advanced by me, to add to each group a general name. I have no new names to suggest, but only propose to apply the old names in the manner as they are used in the following synoptical table, with reference to the above detailed remarks:

1. BENIGN TUMORS; *i. e.*, such as but seldom return after extirpation, but sometimes occur distributed in great numbers over the whole surface of the body.

1. The simple Cysts.

- (a) With serous fluid.
- (b) With mucous contents.

(c) With pultaceous contents.

(d) With blood.

2. The Fatty Tumors.

3. The Fibrous Tumors.

(a) The soft fibrous tumors.

(b) The hard fibrous tumors.

4. The pure Cartilaginous Tumors.

5. The Exostoses.

(a) The spongy exostoses.

(b) The ivory exostoses.

6. The Vascular Tumors.

(a) The telangiectases.

(b) The cavernous hæmatomata.

7. The Horny Excrescences.

II. SARCOMATA ;—*Tumors which often return locally, but seldom invade the internal organs.*

1. The Gland-like Tumors.

2. The Colloid Tumors.

(a) The homogeneous colloid sarcomata.

(b) The areolar colloid tumors.

3. The Cystoids and Cystosarcomata.

4. The firm Sarcomata.

5. The soft Sarcomata.

6. The soft Papillary Tumors.

III. CARCINOMATOUS TUMORS ; i. e., *such as always return locally, then appear in the nearest lymphatic glands, and finally in internal organs.*

1. The Carcinomata.

2. The Cancroids.

3. The Scirrhi.

IV. MEDULLARY AND MELANOTIC TUMORS ; i. e., *such as usually soon return locally, and rapidly extend upon internal organs.*

1. The Medullary Fungi.

2. The Melanotic Tumors.

PART III.

RECORD OF MEDICAL SCIENCE.

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On the treatment of Hæmorrhoids. By MM. NELATON AND HEYFELDER.

In a recent clinical lecture, M. Nelaton made the following remarks :—" I was some time since a great partisan of the actual cautery in hæmorrhoids, at least since it could be employed under conditions formerly impossible. In fact, nothing can be more painful than its application. I have seen cauterization employed many times by Dupuytren, who first excised the tumor and then cauterized; but so terrible were the sufferings of the patients, that I could scarcely have made up my mind to have recourse to it, had not the means of preventing pain by chloroform been discovered. I have since then frequently had recourse to cauterization with the best results; and if I do not employ it now it is because we have at our disposition another operative procedure which is just as good, and which is not painful either during or after its application. I mean *ecrasement lineaire*. It is usually untended with hæmorrhage, and when, as is sometimes the case, there is a certain amount of bleeding, this may at once be arrested by means of a powerful hæmostatic, the perchloride of iron. The union of these two means, then, constitutes an excellent method for the ablation of hæmorrhoids.

"One word about ligatures. All surgeons at the end of last century and the beginning of the present were very fearful of applying them, owing to an instance of fatal hæmorrhage which occurred after the application of the ligature by J. L. Petit. I believe I am right in affirming, guided by the cases related by Amussat, and by those which have occurred in my own practice, that these surgeons entertained the most erroneous notions concerning the results of the ligature employed for hæmorrhoids. It is an excellent operation, by means of which patients may be cured in eight or ten days without any accident; and indeed I may place it on the same line with *ecrasement lineaire*. The latter has, however, the indubitable advantage of causing the fall of the tumor within a few minutes, although perhaps it offers somewhat less security against hæmorrhage.

"There is one thing to be well borne in mind—viz., that all these operations practiced in the vicinity of the anus, however

simple they may be in appearance, may terminate in a fatal manner. This is a powerful motive for insisting as long as possible on palliative treatment, only performing an operation as a last resort. Quite recently, one of our leading surgeons applied a small portion of Vienna caustic to a hæmorrhoidal tumor, and the patient was dead the next day; while in another case, an incision made into fistula scarcely a centimetre in length, was followed in a few days by fatal purulent infection. I was myself consulted some years since by a man who, having acquired great wealth, complained bitterly of not being able to enjoy it in consequence of a hæmorrhoidal tumor. I advised him to bear with it, but some time after abundant hæmorrhage having come on, he entreated its removal. He manifested all the signs of complete anæmia. He was put under the influence of chloroform, and the actual cautery was employed. He did not suffer during the operation, but scarcely had he recovered consciousness when he complained exceedingly. I appeased the pain and all seemed doing well, when on the sixteenth day violent shivering ushered in purulent infection, and he died. The conclusion to be drawn from all this is, that you should never operate except when you cannot possibly avoid doing so, since when you least suspect it you may meet with sinister events similar to those just adverted to.

“One more word with respect to *ecrasement lineaire*. This operation has during some time been frequently resorted to; and it is for this description of tumor it is perhaps best adapted. But I ought to inform you that in most cases the operation is badly executed. For a short time after its performance the patients are delighted, and the surgeon believes that he has attained a splendid result; but in the course of a few months the cicatricial tissue contracts, and the patients suffer from an anal stricture. During about a twelvemonth I have had a great number of patients who come to me in order to undergo an operation for the relief of this unfortunate consequence of removal of hæmorrhoidal tumors—the stricture sometimes scarcely admitting the passage of a quill. It has arisen because not only the mucous projection which alone constitutes the disease has been removed, but also a more or less considerable portion of the skin of the orifice of the anus.”

[Professor Heyfelder, of St. Petersburg, commenting upon the above article (*Deutsche Klinik*, No. 20,) adds some corroborative instances of fatal results speedily following apparently trifling operations in the anal region. He is inclined to regard such cases as examples of irritation of the nervous system, somewhat analogous to the *delirium nervosum* or *traumaticum* met with after injuries; and this the more so, as such excitement is often manifested in persons suffering from hæmorrhoids, owing doubtless to some extent to their want of rest.]—*Brit. and For. Medico-Chir. Review*.—*Pacific Medical Journal*.

Smithsonian Institution.

The total amount of the bequest, as received into the treasury, was \$515,169; interest on the same to July, 1846, devoted to the erection of the building, \$242,129. In addition to these \$135,000 of unexpended income has been invested in State bonds, so that the present income of the Institution is \$38,325.-14. The principal expenditures are, for salaries, about \$9,000; for publications of all kinds, \$9,000; for meteorological observations, \$2,500; for lectures, \$1,000; for the library, \$3,500; for museum, \$2,000. There are some incidental matters involving expenditure, and about \$5,000 is set apart from the income to make a certain financial change for the sake of economy. The collections of various kinds which had accumulated at Washington, have now been concentrated at the Institution, Congress agreeing to make an appropriation of \$4,000 annually to keep them up. They are such as the collection of the Exploring Expedition, under Captain Wilkes, in South America and the South Seas; that of Lieutenant Herndon's exploration of the Amazon; Capt. Stanbury's exploration of the Great Salt Lake; Captain Perry's Japan collections, etc., etc. This museum is stated to be now superior to any other in this country as a general collection, though in the specialties of exotic birds, shells, fossils, and minerals, it is said to be surpassed by the Philadelphia Academy of Natural Sciences. We are glad to see that the Secretary who has charge of this department looks forward to the object of "having a public museum, illustrating as fully as possible the natural history of the world, and taking rank with those of London, Paris, Berlin, and Vienna."—*Washington Star*.—*Chicago Medical Examiner*.

Use of Cold Water (irrigation) in restraining Inflammation and preventing Heat, Pain and Redness in Fractures.

The extremely satisfactory results that I have obtained in the Marine Hospital during the past winter by the continued application of cold water to the fractured limbs, induces me to add my testimony to that of Drs. Smith, Pope, and other surgeons. It would be difficult to use terms too extravagant in describing the ease, comfort, and prevention of pain, which this method of treatment secures to the patients even after double compound comminuted fractures have been sustained. During its employment the individual feels no pain; he has no fever, and he does not obviously lose flesh; he does not suffer from constitutional disturbance of

any kind, nor is he conscious indeed that so serious an injury has befallen him, save when his eye is directed towards the member under treatment. At the end of the fifteenth day after entrance, the patient's physical condition is just as good as on the day of his admission; because the limb being bathed day and night in fresh supplies of cold water, there is no pain, redness or inflammation, consequently no swelling, suppuration or wasting discharge, involving constitutional disturbance, loss of rest, emaciation, night sweats or loss of appetite. These are the usual concomitants of every other mode of treatment of fractures where the soft parts were injured.

The leg is placed in a box made of block tin, in which it fits loosely and which embraces it above the knee. This is stuffed with cloth or paper at suitable intervals to keep the leg fixed. These substances may be removed one by one and the member cleansed without disturbing its position. At the most dependent portion of the box there is a tube passing out so far that the water falling upon the limb may escape outside of the bed. A bit of oilcloth might be used as a substitute when the box cannot be had. No straps or bandages are used. A jar containing water, with alum, (and ice if the weather is warm) is suspended above the limb by cords attached to the four posts of the bed. From the jar are depended several strips of cloth or candle wick, so directed that the water, by capillary attraction, constantly drops upon the entire surface of the wound. This irrigation is kept up night and day for from twelve to fifteen days, at which time it is advisable to discontinue it, as the action of the water becomes injurious by creating irritation of the skin. Even in the coldest weather in winter this may be kept up by covering the patient's feet with carded cotton, to preserve a sufficient amount of warmth. Otherwise the temperature of the foot becomes too much lowered.

The above method has been employed in five cases of fracture of the tibia, with perfectly satisfactory results in every instance. In the management of wounds, recent contusions, etc., whether connected or not with injury to the bones, the use of cold water has been, in my experience, equally applicable and successful.

Management of Chronic Ulcers.—To secure with perfect certainty the healing of *chronic ulcers*, whether situated or not on parts unfavorable to their healing, I have adopted a modification of the above plan.

It was suggested by the case of a man of scrofulous diathesis under treatment in the Marine Hospital two years ago, whose whole person was marked with old cicatrices of frequent former ulcerations. He informed me that he had been treated in the Dreadnought Hospital, near London, where they are in the habit of managing such sores, by light bags made of cotton or thin cloth, somewhat resembling a miniature pillow, that will retain

fluids, which are frequently soaked in *hot* water and kept applied to the ulcerated surfaces. The difference in the temperature of the water adapts this mode of treatment to this peculiar form of disease by the special influence of hot application in lessening *morbid sensibility*. In healing ulcers, I have frequently directed that the bags should be immersed in cold water, first stimulating the ulcerated surface to great activity by the previous application of strong nitric acid—or nitric acid in which bits of copper have been dissolved. The escharotic is used every two or three days, the bags soaked in hot or cold water being applied continuously. Rest is enjoined and tonics and hæmatics made use of.

Fifteen cases were treated in the Hospital within the past fifteen months, and in every instance the patient has been discharged cured. After trying within the past three years every species of salve, local astringents, caustics, etc., in the attempt to come to some conclusion as to the relative value of each, and having been taught in earlier life to regard chronic ulcers as the opprobria of medicine, I now feel entirely confident that a case can hardly be so bad that it cannot be healed successfully after the method recommended. Granting the special value of *hot* applications in lessening morbid sensibility in parts extremely liable to it, I have yet thought that *cold* possesses these special advantages, also, in constringing the capillaries which have been relaxed by injury to the nerves governing their due contraction—as shown by the surrounding heat and redness; therefore, some judgment may be exercised in selecting the one or the other.

J. H. Bennet says (Clinical Lectures, p. 153, General Treatment of Exudation:) “A correct treatment, therefore, will be influenced by the stage and nature of the exudation. To prevent or diminish the extent of an exudation, we must adopt measures to overcome the dilatation of the capillaries, their distension with blood, and the attractive power, (whatever it is,) which draws the liquor sanguinis into the surrounding textures. This is accomplished—1st, by local application of cold and astringents, which stimulate the capillaries to contraction; 2d, by soothing topical applications, such as warm fomentations, opiates, etc., which relieve the irritation of the nerves in the part.” * *

“Thus locally, *cold*, dryness, and pressure, check; while *heat*, *moisture*, and room for expansion, favor growth.”

[*Charleston Med. Journal and Review.*

Death of Dr. Fountain, of Davenport, Iowa.

Dr. Fountain's death occurred on Friday afternoon last, after great and continued suffering for a week, which he had borne with unflinching Christian fortitude. For some time past he had been continuing, at the suggestion of the American Medical Association, his researches upon the properties of chlorate of potassa as a remedy in phthisis, taking the ground that the article when pure was almost entirely harmless in large doses. Under this conviction, he took upon several occasions doses of half an ounce, and on Friday, at 10 o'clock A. M., he took one ounce, dissolved in a pint of water. No serious symptoms occurred through the day, except a profuse diuresis and discoloration of the superficial circulation, and he visited his patients as usual. Having eaten a hearty supper in the evening, he returned to his house, where he was shortly after seized with severe pain in the abdomen, and so greatly prostrated as to be unable for sometime to call assistance, (being alone in the house, his wife being absent at the East.) He expected to die in this condition, but by a desperate effort succeeded finally in calling his neighbors, who sent for his partner, Dr. Adler. His symptoms were after a time partially relieved, but soon he was seized with vomiting, ejecting a dark-colored, greenish fluid, being unable to retain any nourishment; the secretion of the kidneys was also entirely suppressed. This condition continued, with a gradually increasing prostration of the system, (the mind being perfectly clear,) for seven days.

"The post mortem examination revealed extensive inflammation and disorganization along the whole course of the intestinal canal, with adhesions agglutinating nearly the whole of the abdominal viscera; the gall bladder distended with a thick dark colored fluid; the kidneys enlarged and lobulated externally; the internal surface and substance engorged, and the uriniferous tubes distended, containing frequent points of a crystalline substance, which was, without doubt, chlorate of potass; and the bladder entirely empty, contracted and inflamed.

As a full statement of the case will be published, it is unnecessary for us to dwell further upon it.

In the death of Dr. Fountain, the profession in the Northwest has lost one who was destined to prove one of its brightest ornaments, and the community in which he lived, one of its most valuable citizens.—*Chicago (April, 1861) Tribune.*

We had little thought when penning the above paragraph on "Chlorate of Potash," that our ideas were so soon to have a striking and melancholy illustration. This sad experiment has shown that although the article in question is comparatively inert, in doses ordinarily employed, yet in inordinate amount it is capa-

ble of even fatal effects. In this respect it is altogether analogous to many other salines. We trust that this calamitous result may not fail to impress the needed lesson.

It is to be hoped, that we shall hear no more of the intense folly of chlorate of potash being in any sense a remedy for phthisis. Phthisis never has been, and we hazard little in saying, never will be cured by medicine. If modern physiology and pathology have taught any one thing more than another, it is, that this fearful disease is to be met by nutrients and appropriate regimen. Medicine therein is only indirectly and remotely beneficial. And yet we have known case after case go down to death, in this very city of Chicago, during the winter just past, treated empirically with chlorate of potash, expectorants and seclusion. Why, it is not a year since one of our most estimable physicians allowed himself to be treated for phthisical symptoms with small doses of antimonials and low diet! He fortunately escaped the immediate necessary effects, by seeking the natural tonic and stimulant effect of Lake Superior air and habits (including appropriate drinks) during the last summer, and during the winter the opportunities of out-door air and exercise, and consequent invigoration of the digestive system, afforded by a Southern climate.

It is our duty to make one other remark in this connection. Experiments made upon the healthy system are of doubtful import as illustrative of the effects upon the same system in a state of disease. The article which is rapidly eliminated by the healthy organ and thus proves harmless, may in a condition of disease prove deadly by its continuance in contact with the same. Experience demonstrates the fact, however it is explained.

Much confusion exists in some minds as to the terms medicines, poisons and food. Medicines and poisons are agents capable of producing a change in the structure or action of any part or the whole of the system, although constituting no part of the integral constituency. They are respectively poisons or medicines according as this change is not, or is, necessary. The degree of action does not constitute a scientific distinction in their nature. A medical action is never unnatural. It is a gross confusion of terms to call any medicine an unnatural agent. As well speak of the fire which restores the warmth of the body as an unnatural agent, because it can char and destroy the same body thrown into it. But food enters into the very structure of the body, and constitutes an integral part thereof. Not so entering or constituting, it is noxious, poisonous if you please, in kind if not in degree, as is woorara or arsenic. A like significance attends the idea of the influence of all the so-called imponderable agents. They are noxious or salutiferous according as the changes they tend to produce are not, or are, requisite.

With due regard to strictness in the use of language, there is

not, and cannot be, a specific for any disease, phthisis or other. In this day, it is as great a folly to search for it as for the "Philosopher's Stone," or the "Elixir of Life" of old time imaginings.

Let the homœopathists enjoy their specifics jointly with the other newspaper quacks,—we shall continue to steadfastly believe that, though hand join in hand, they shall not escape their destined punishment.

The very best remedy for a diseased organ, whether a tuberculous lung, an indolent ulcer, or a gouty toe, is to wash it with healthy blood, flowing from within outwardly, and not by healing salves, inhalations, poultices, and specifics, working from without inwardly, as the manner of some is.

The method of nature is to be imitated by art, but as Shakspeare observantly writes, "The art itself is nature." It is all very well to train the branches and graft them, to wash and peradventure whitewash the trunk of your tree; but if you wish it to grow and flourish and bear goodly fruit, you must supply the rootlets and spongioles with nutrient fluids, and surround the leaves with appropriate atmosphere.

One very considerably eminent gentleman is reported to have said that the great want of the present time is, a specific for tubercle, and a specific for cancer; as in Scabies we have sulphur, and in Syphilis, mercury, for specifics. The prayer of his heart can never be granted as he intended, although it may in fact. Because neither sulphur nor mercury are specifics within any correct definition of the term.

Specifics, whether chlorate of potash, or Morrison's pills, can have no existence anywhere, save in the imaginations of speculative theorists and hobby riders.

In these remarks, we by no means would be thought to convey the idea, that the lamented Dr. Fountain was in any way committed to the idea that chlorate of potash would prove specific in phthisis. We do not know whether he was or not; but we do know that many who had read his articles on the subject, have already mounted this hobby and were fast riding it to the death—of their patients. For Heaven's sake, my Chlorate-of-Potash-bitten friend, don't ride this poor hobby to the nether regions as quickly as you did *Veratrum Viride*, yesterday; *Aconite*, the day before, and *Digitalis* a little while since. Or were you straddling the *Hypophosphites* last week? We have medicines enough already—too many; would that we knew better how to use them.

Meanwhile, what do you say to a bit of beefsteak, tender, rare-done, washed down with generous beverages, (such as saved the threatened life of our friend above spoken of,) a little more pure air and sunlight, a clear conscience, sleep at night, and regular bowels? These afford a remedy for phthisis worth thinking about.

[*Chicago Med. Journal.*]

Sanitary Condition of Troops.

We publish with pleasure the following excellent directions for the sanitary conduct of the troops in the field, which constitute the substance of a report prepared by Dr. John Ware, of the State Medical Commission, to be communicated to the Massachusetts regiments in active service.

Directions.—Soldiers should recollect that in a campaign, where one dies in battle, from three to five die of disease. You should be on your guard, therefore, more against this than the enemy, and you can do much for yourselves which nobody can do for you.

1. Avoid, especially, all use of ardent spirits. If you will take them—take them rather *after* fatigue than before. But tea and coffee are much better. Those who use ardent spirits are always the first to be sick and the most likely to die.

2. Avoid drinking freely of very cold water, especially when hot or fatigued, or directly after meals. Water quenches thirst better when not very cold and sipped in moderate quantities slowly—though less agreeable. At meals, tea, coffee, and chocolate are best. Between meals, the less the better. The safest in hot weather is molasses and water, with ginger, or small beer.

3. Avoid all excesses and irregularities in eating and drinking. Eat sparingly of salt and smoked meats, and make it up by more vegetables, as squash, potatoes, peas, rice, hominy, Indian meal, &c., when you can get them. Eat little between, when you have plenty at meals.

4. Wear flannel all over in all weathers. Have it washed often when you can—when not, have it hung up in the sun. Take every opportunity to do the same by all your clothing, and keep everything about your person dry, especially when it is cold.

5. Do not sit, and especially do not sleep upon the ground, even in hot weather. Spread your blanket upon hay, straw, shavings, brush-wood, or anything of the kind. If you sleep in the day, have some extra covering over you.

6. Sleep as much as you can and whenever you can. It is better to sleep too warm than too cold.

7. Recollect that cold and dampness are great breeders of disease. Have a fire to sit around whenever you can, especially in the evening and after rain, and take care to dry every thing in and about your persons and tents.

8. Take every opportunity of washing the whole body with soap and water. Rub well afterwards. If you bathe, remain in the water but a little while.

9. If disease begins to prevail, wear a wide bandage of flannel around the bowels.

10. Keep in the open air, but not directly exposed to a hot sun. When obliged to do this, a thin, light, white covering over the head and neck, in the form of a cap with a cape, is a good protection.

11. Wear shoes with very thick soles, and keep them dry. When on the march, rubbing the feet, after washing, with oil, fat or tallow, protects against foot sores.—*Boston Med. Jour.*

Chlorate of Potash.—This article has very nearly upset all the old hobbies. One of our friends uses it even when the patient is moribund “to oxygenate the blood.” Another, as a substitute for calomel as “an antiplastic.” Another, as a “recondite alterative.” Another, as “a stimulant to the mucous membranes.” Another, as “a refrigerant saline.” Another, as an “expectorant of specific characteristics.” Another has found it an “arterial sedative;” and another cures consumption and perhaps corns with it. Crystalized Elixir of Life!

Seriously, we apprehend that the inordinate and indiscriminate use of this article is becoming a little too dangerous to continue merely ludicrous. It would seem to possess about as active properties as the nitrate, but tending to elimination rather by the mucous membranes than by the kidneys. Aside from slight stimulant effects upon this membrane, we feel warranted in saying that there is no real evidence of its medicinal efficiency. It seems especially useful in certain morbid conditions of the respiratory mucous membrane. Employed, as it frequently is, in aqueous solution acidulated by hydrochloric acid, it of course has to divide the honor of success with the acid of the menstruum. We really hope that this very clever little medicine may not be “run into the ground” by its present enthusiastic admirers. We have too much regard for it, in some cases and in small doses, as a very convenient *placebo*—cheaper even than iodide potassium.—*Chicago Med. Jour.*

Chloroform in Congestive Chills.—In the Oglethorpe Medical and Surgical Journal for July, Prof. H. L. Byrd has an article upon the treatment of congestive chills with chloroform by inhalation. On a former occasion, we called attention to an article upon the same subject, by Dr. Keator of Louisiana. The last named gentleman introduced the chloroform into the stomach, while Prof. Byrd gives it by inhalation. He says, “My impression is, that chloroform inhaled during the cold stage of fever, or in a ‘congestive chill,’ to the extent of making a decided im-

pression upon the system, is perhaps the most valuable remedy known to the profession."

He says, further, "With chloroform and quinic ether at hand, I predict that the heretofore fatal 'congestive chills,' which have been regarded with so much terror by the physicians of South-western States, will be as easily managed as any of the milder grades of miasmatic fever."

Laryngoscope.—Liston recommended, in his "Practical Surgery," for examination of the larynx, a "speculum on a long stalk, previously dipped in hot water, introduced with its reflecting surface downward, and carried wet into the fauces." This hint, however, remained unnoticed till 1855, when Garcia made his autolaryngoscopic investigations by means of a mirror placed against the soft palate, receiving the reflected image of the larynx upon a second mirror placed in front of the observer. This laryngoscope was soon abandoned again. Since 1857, some practitioners in Germany, more particularly Dr. Turck, in Vienna, and Prof. Ezermack, in Presth, have devoted their attention to this subject, and finally contrived an apparatus capable not only of assisting in the diagnosis, but of serving to guide the hand and otherwise assist in the treatment of disease of these parts.

Prof. Ezermack's laryngoscope consists of a small metallic mirror, varying in size from six to fourteen lines in diameter, square, with rounded edges (oval according to Turck's proposal; found by Dr. Levin of Berlin more convenient when semicircular, with a concave inferior margin), soldered to a slightly-flexible metallic handle. To prevent the mirror from becoming dim by condensation of vapor upon its surface, it is necessary to warm it, previous to introduction, by dipping it in hot water, or holding the unpolished surface over the flame of a small spirit lamp. Ezermack does not, like Garcia, depend upon the light of the sun, but has adopted the method of artificial illumination employed by Prof. Helmholtz in ophthalmoscopic operations, using a perforated concave reflector, or illuminating mirror, by which the light of an ordinary lamp can be concentrated upon the larynx-speculum. This second mirror is fixed either round the head of the surgeon, or attached to a large spectacle frame, or held between the teeth of the observer, by means of a suitable ivory handle, or suspended from a support screwed to the corner of the table on which the lamp is placed. As the distinctness of the image depends upon the brilliancy of the illumination employed, it will be found advantageous to concentrate the light of the lamp upon the concave mirror by means of a powerful bi-convex lens. Dr. Levin has devised a highly convenient apparatus for this purpose,

consisting of a tin tube carrying a convex lens of two and a half inches focal distance, and about the same diameter, which can be fixed horizontally over an Argand lamp.

The patient is seated in front of the operator, with his hands resting on the knees, the body inclined forward, the head thrown back, the mouth wide open, and the tongue as much depressed and flattened as possible. The lamp is best placed to the right of, or a little behind the patient. The operator supports the head and chin with his left, and introduces the speculum with his right hand, while the patient is ordered to take a deep inspiration and emit the sound of *a* alternately. By this the velum and uvula are raised so as to permit the introduction of the mirror with greater facility, which is then directed to suit the position of the part to be inspected.

Laryngoscopy, thus performed by a dexterous and experienced hand—because it requires much experience to acquire facility in its practice—enables not only the deeper portions of the larynx to be examined, but even the bifurcation of the bronchi may be distinguished through the widely-opened glottis. On the whole, however, examinations of this kind are naturally surrounded by numerous difficulties, and can only be expected to succeed under a combination of favorable circumstances.—*Edinb. Med. Journal.*
—*Cincinnati Lancet & Observer.*

*Pus Corpuscles in the Air!—An Æroscopic Study by Docent
Dr. Theoph. Eiselt in Prag.*

[Translated for the Boston Medical and Surgical Journal, from the *Wochenblatt der Zeitschrift der k. k. Gesellschaft der Aerzte in Wien*, March 26, 1861, by J. C. White, M.D.]

During an epidemic of conjunctival bluenorrhœa, which prevailed a short time ago in the Orphan Asylum at Repy, eight miles distant from Prague, I had opportunity to learn by experience that infection may take place in other ways than by contact. Reserving for future description the particulars of this interesting epidemic, it will be sufficient for my present purpose to show its intensity by a few numerical data. Such foundlings as are given up by their foster-parents are brought to the large and newly-built institution at Repy. Among these two hundred and fifty foundlings, of whom the majority are between the ages of six and ten, there occurred in 1860, from November to December, forty-six, and in the period between the 16th and 21st of February, 1861, also forty-six cases of acute conjunctival blennorrhœa. His Excellency, the Governor of Bohemia, Count Forgach, presided personally on the 19th of February at a Council in Repy, at which Prof. Ritter von Hasner, Landes-medizinalrath-substitut, Dr.

Hoser, Dr. Biermann, Director of the Hospital, and myself, as house physician, were present, and ordered the perfectly healthy children to be left at Repy, but the diseased and infected to be removed with the greatest haste from the institution. Forty-six children were found unaffected, while the newly attacked and those which exhibited merely an injection of the conjunctiva or papillary structure of the membrane without suppuration, were brought to Prague, and distributed in eight different localities. In the latter place, four-fifths, and in Repy all of the children, were under my care.

It will readily be believed that as a physician I took the greatest precautions to protect myself against infection. I was particularly careful not to touch my own eyes. The cleansing of those of the patients was entrusted to the Sisters of Charity, and most punctiliously performed. No chance of contagion from this source was possible, therefore, nor did any scattering of pus take place either by the patients sneezing or coughing during their examination. I was in the habit of going to the Asylum at Repy daily, where I first examined the healthy inmates, then touched the lighter cases of the disease with cuprum, and visited the worst last of all. Whenever I had in this way spent a few hours in the wards, I was sure to feel a sensation of burning and pressure in the eyes, without being able to observe anything upon the conjunctivæ except streaks of injection on the edges of the lids. In the course of a few hours this unpleasant feeling disappeared of itself. When the patients were brought to Prague and I visited them daily, this sensation of pain remained constant, the carbuncles became red as well as the whole conjunctiva palpebrarum, and the semilunar fold became livid and so cedematous that the movements of the globe were impaired, accompanied by a mucous secretion, so that the lids adhered in the morning. In other words, I was infected without having become so by contact. The same happened without exception to all the nurses. Of seven of the nuns severely affected, two had caught the disease by the spattering back of the water while cleaning the eyes, two from the dissemination of pus by the sneezing and coughing of the children during the same process, one by washing the bandages, and two in some inexplicable manner. The infection in my own case only needed more unfavorable circumstances to become converted into an acute affection; as it was, however, application of weak solutions of nitrate of silver caused it to diminish in intensity.

Here, then, we have the fact that a person may be attacked by an acute conjunctival blennorrhœa without purulent contact in the ordinary sense; there is wanting only the explanation—how is this possible?

Ponchet, who for many years has been engaged in the microscopic analysis of the air, describes, in the *Compt. Rendus* for

April, 1860, an apparatus which he calls an *aëroscope*. Through the kindness of our respected Prof. Purkyne a similar contrivance was prepared here. It depends upon the plan of driving a certain quantity of air across a glass plate moistened with glycerine, upon which the particles of dust and microscopic forms remain fixed, and may be thus readily examined by the microscope. The apparatus consists of a hydrostatic aspirator and two glass tubes, of which the first terminates at its upper extremity in a small funnel, the infundibuliform opening being directed upwards, while the lower is drawn out into a point of 0.50 of a millimetre in diameter. The second tube is ground into the first, and its upper opening is covered with a fine metallic sieve, upon which the glass plate is fastened. This plate is brought to within one millimetre's distance from the lower funnel-shaped opening by pushing in the tube, and the lower end of tube No. 2 is hermetically united to the aspirator, which is filled with water. The latter is merely a vessel made of zinc plate, two feet high and one foot square at its base, having at the bottom a stop-cock, and in the cover a mouthpiece for connection with the glass tube. If now the water be allowed to flow from the aspirator through the stop-cock, the same bulk of air will stream in through the funnel, and the matter suspended in it will remain sticking to the glass plate.

This *aëroscope*, as modified by Prof. Purkyne, was placed between the beds of two patients in a ward in which were thirty-three boys with acute conjunctival blennorrhœa accompanied by great secretion of pus, and the air was drawn through it. It must, moreover, be stated that the eyes were washed by means of glass syringes with warm water, and that from this room alone several pails of waste water were thrown away daily, presenting a milky appearance from the pus it contained. The experiment was made at 10 A. M., after the apartment had been ventilated, *and pus corpuscles were detected in the atmosphere by the very first transmission through the apparatus.*

In this fact lies the explanation of the attacks above described, in which cases direct contact with the patients and the blennorrhagic secretion was excluded. *Infection took place by means of pus corpuscles suspended in the atmosphere.*

In presenting this short but significant communication of our respected colleague and friend to the knowledge of our readers, we cannot forbear adding a few words, prompted by the importance of the subject, and with the more reason, that Dr. Eiselt has far too modestly disdained to surround the announcement of his discovery with that display, which, in science as well as in other fields of human knowledge, appears necessary to procure for a new fact its merited consideration and recognition.

The great significance of this discovery to pathology in gen-

eral, and to the study of contagion in particular, and the immense importance of this fact, when more thoroughly studied and corroborated, in connection with the care of the sick and the erection of hospitals, need not be farther impressed upon the physician. A new sphere of objective information is thus promisingly revealed, a new and hitherto all untrodden path opened, which, whether its results be negative or positive, will at all events lead to the advancement of science. * * * * *

We are able to say that in consideration of the high importance of this subject, many members of our society have united to give a thorough investigation, and we shall not fail to keep our readers constantly acquainted with the progress of these examinations, which from the abundance of suitable material afforded by Vienna, and from the combination and systematic employment of so many forces, promise a speedy and conclusive result.—*Editors of the Wochenblatt.—Boston Med. & Surg. Jour.*

PART IV.

EDITORIAL.

MILITARY SURGERY.

Under the head of Bibliographs, we have already briefly noticed one of the small works on Military Surgery, recently called forth by the extraordinary and melancholy exigencies of the times. Since then, we have received two other works of a like character, but too late to claim a notice under the appropriate head.

One of these is by Professor S. D. Gross of Philadelphia. It is so small as to be conveniently carried in the pocket, but at the same time contains much important information, which young physicians who have so hurriedly entered the volunteer service, perhaps not always with a full knowledge of the weighty responsibilities of their position, would do well to possess themselves of. The other is rather a more elaborate treatise—still, not by any means voluminous—by Professor Frank H. Hamilton of New York, the object of which is to supply information upon those points in surgery, medicine and hygiene, which, as having relation especially to military and naval practice, are usually not considered in general treatises. It is an invaluable work to the camp physician and surgeon. The acknowledged ability of these two authors will at once give authority to their respective works, which we fear there will be but too much necessity to consult in hospital, in camp, and on the field.

APOLOGETIC.

We hardly deem it necessary to apologize for the small amount of editorial and miscellaneous matter in the present number of our journal. The fact is our mind has been so occupied with the distressed condition of our bleeding country, that we have not felt the least disposition to read or write on medical subjects, or even to look over our exchanges.

RESIDENT PHYSICIAN TO THE ST. LOUIS CITY HOSPITAL.

Dr. L. T. Pimm of this city has been appointed by the Mayor Resident Physician to the St. Louis City Hospital, and he has already entered upon the discharge of the arduous duties of his office. This is a good appointment, and we feel satisfied that neither the interest of the patient nor the cause of science will be allowed to suffer in Dr. Pimm's hands.

THE ISSUE OF SMALL NOTES.

Under a special act of the Legislature, our banks are on the eve of issuing notes of a smaller denomination than five dollars, in order to meet the exigency of the times. This will afford a good opportunity to such of our subscribers in this State and elsewhere as are in arrears (and unfortunately there are many such) of remitting by mail. We sincerely hope that they will avail themselves of the facility thus afforded. Our printers have to be paid these hard times, (for without it they cannot live,) whether our subscribers comply with their engagements or not. Let us hear from you, therefore, gentlemen Doctors, at your earliest convenience.

MEDICAL MISCELLANY.

Deferred Communications.—We are in receipt of communications from Drs. Curtis and Vasse, which will appear in our next number, having come to hand too late for the present issue. We are at all times glad to hear from our friends in this way.

Homœopathy in the Michigan University.—We are glad to learn from a letter of Prof. Palmer to the Chicago Medical Examiner, that the Legislature of Michigan *did not* pass a law requiring the establishment of a chair of Homœopathy in the Medical Department of the State University of Michigan. A bill to that effect was introduced by a quack doctor, but it failed to pass. We are glad to learn this. Having on the authority of others made the statement, we now cheerfully make the correction.

Army Medical Board.—The Boston Journal says: "It is stated that the Secretary of War has instructed Surgeon-General Finley to convene an Army Medical Board at Washington, for the purpose of examining candidates for Brigadier Surgeons, and report, and the appointment shall be made only from among those who are reported as qualified. In consequence of numerous complaints having been made to the Department of the incompetency of regimental surgeons who have been appointed either by the commanding officer or the Governors of States, a similar Board has been instituted. The Board will examine the surgeons of whom complaint has been made, in order to secure their dismissal if found incompetent."

Summary of Medical Science.—We have received the first number of this semi-annual summary and digest of practical medicine and surgery, gathered from the leading American and Foreign Journals, and edited by Walter S. Wells, M.D., compiler of Braithwaite's Retrospect and Rankin's Abstract. It is to be issued semi-annually by Chas. T. Evans, No. 532 Broadway, N. Y. The scope of the volume can readily be understood by the works in which the author has heretofore been engaged. It is well gotten up, contains a large amount of useful matter, conveniently arranged, and should be in the hands of every physician.

Death of a Medical Editor.—David Meridith Reese, M.D., LL.D., late editor of the American Medical Gazette, died in New York on the 18th of May, of disease of the heart. Dr. Reese was well known to the profession of this country as a bold and vigorous writer. He was a native of Maryland, a graduate of the Maryland Medical University, and at the time of his death was 61 years of age.

To Prevent Vomiting from Chloroform.—According to Dr. Fischer, a glass of wine taken 15–30 minutes before chloroform, will entirely prevent the vomiting so often troublesome after inhalation. Perhaps, he adds, the dangers may also be lessened by this simple means.

The Application of the Nitrate of Silver by Inhalation.—Dr. D. F. Tetter, in the Amer. Med. Times says: "For a number of years I have been applying the nitrate of silver, well triturated with a little white sugar, directly to the larynx and trachea, by the means of a small glass tube, three or four inches long. The powder is placed in the tube, the forefinger is then placed on one end, the other is passed into the mouth as far as possible without coming in contact with the epiglottis; the mouth is then closed tightly over the tube, the finger is then removed, and at the same moment a strong inhalation or inspiration will draw the powder into the larynx and trachea, where it is absorbed by the mucous membrane, without any unpleasant sensations. By this means the unpleasantness of having the probang thrust into the larynx is avoided, and the benefits received are the same, but more satisfactory. After the first application, the patient can repeat the same without assistance."

Bread-Making.—A new process for the manufacture of bread, by forcing carbonic acid into the water to be used in forming the dough, was introduced into the chemical section of the British Association at Aberdeen; it is said to be used successfully in London. The use of yeast is superseded.

Iodine in Ointments.—Iodine may be dissolved in a little chloroform and triturated with the lard; the excess of chloroform readily evaporates, and the ointment contains the iodine uniformly mixed.

Whooping Cough.—The Journal of Materia Medica quotes the following from Dr. Benson, in the Louisville Journal, as a good formula in case of whooping cough. R—Acid hydrocyan. gtt. vi.; ext. belladonna, grs. ii.; tr. opii camph., 3 iii.; syrup bals. tolu., 3 i.; aqua font, 3 iii—M. One teaspoonful four times a day, and also in the night paroxysms.

Postponed for one year.—The committee at Chicago wisely determined to postpone the meeting of the American Medical Association, which was to have been held last month, for one year, on account of the civil war now unhappily raging.

Our Southern Exchanges.—Owing to the suspension of the mails to the seceded States, and non-intercourse between the two confederacies, we are without our usual Southern exchanges. We regard this as a real loss and regret it accordingly, but indulge the hope that it will only be temporarily, and that friendly intercourse will soon be established between the sections.

Digitalis in large doses in Menorrhagia.—The Druggist's Circular quotes the following from the Gazette des Hopitaux: "Mr. Trousseau speaks favorably of the employment of digitalis in strong infusion in cases of severe menorrhagia, to be given in tablespoonful doses every half hour. The strength of the infusion, when a severe attack is threatened, may even be as much as an ounce of the leaves to a quart of water, which is certainly an extreme dose, and requires great circumspection. Whenever the toxic effects of the drug, vomiting, diarrhoea, etc., make their appearance, the further administration is to be discontinued."

Medicine in Prussia.—The medical staff of Prussia, at a population of 17,739,913, amounts to 358 district physicians (paid by government, and have to attend the poor gratis), 4327 physicians with degree of doctor, 996 surgeons of the first class, 643 of the second class, 1020 veterinarians, 1529 chemists, and 11,411 midwives.

Arsenic in Menorrhagia, etc.—The Cincinnati Lancet quotes the following from the American Journal: "The plan of Dr. A. P. Burns is, to give immediately from ten to twenty drops of Fowler's solution, repeated every fifteen or twenty minutes, until the hæmorrhage is checked. From three to five drops of the same remedy are given, three times a day, for the cure of leucorrhœa. In either affection, if there is debility, the solution is combined with three ounces of tinct. cinch. comp. and two drachms of tinct. canthar., a teaspoonful three times a day, occasionally with the addition of spirits æth. nitr. and tinct. opii camph. The arsenical solution is also stated to be a prompt and effective remedy against the hæmorrhage, in treating abortion, or after delivery."

Lead Poisoning in the production of Abortion.—The Boston Med. & Surg. Journal says: "The following figures have been published by M. Paul Dubois, in a statistical investigation of the subject of the influence of lead poisoning in the production of abortion. Out of 141 pregnancies in females under the influence of lead, 82 abortions took place; in 4, premature confinements occurred; in 5, the children were stillborn; in 20, the children died in the course of the first year; in 8, during the second year; and in 7, in the third, &c."

Successor to Professor Meigs.—Dr. William V. Keating of Philadelphia has been appointed Professor of Obstetrics in the Jefferson Medical College, in the place of Dr. Charles D. Meigs, resigned.

Poisoning from Painted Candy.—The Chicago Medical Journal says: Two cases, in one family, have recently come under our observation of quite severe symptoms of irritant metallic poisoning, from eating the richly colored candies offered for sale in the shops. The yellow colored candy (probably from the presence of orpiment) appears to have been the active agent. Cannot measures be taken to prevent this dangerous practice? It is well known that children are liable to similar attacks from sucking off the paint from their colored toys.

Treatment of the Freckles of Pregnancy.—The Pacific Med. & Surg. Jour. quotes the following from the Bul. Therap.: "When freckles, which are of such common occurrence in pregnancy, persist after delivery, M. Hardy recommends the following lotion: Dist. water 125 parts, corrosive sublimate $\frac{1}{2}$ part, sp. wine 9 parts, to dissolve it, sulph. zinc, acetate of lead, aa 2 parts. When this application fails, Bareges or Luchon water, applied as local douches to the parts affected, induce slight inflammation, which facilitates the absorption of the pigmentary deposits."

Summary of Medical Science.—Dr. Walter S. Wells of New York, who has so successfully presented an epitome of Braithwaite's Retrospect, proposes to bring out semi-annually a summary of medical sciences, containing all the choice articles on the various retrospects and abstracts, together with the English, French, German, and other journals. It will, doubtless, be a most acceptable work. For particulars, see advertisement under the appropriate head.

Death from the Diphtheritic Virus.—The American Medical Times says: "Another instance of the death of a physician by the communication of the diphtheritic virus from the patient is reported. The French journals state that Dr. Gendron of Tours, while attending a woman suffering from croup, had his face covered with the expectorated matter, while the patient was undergoing the operation of tracheotomy. He was very fearful of this attack which promptly occurred, and of which he died. It will be remembered that the lamented Dr. Charles Frick of Baltimore, lost his life in a similar manner, being attacked with diphtheria soon after performing tracheotomy on a patient dying of that disease."

Surgeon General of the U. S.—Clement A. Finley, M.D., has been appointed Surgeon General of the U. S. Army, in the place of Dr. Lawson, deceased.

THE ST. LOUIS
MEDICAL AND SURGICAL JOURNAL.

VOL. XIX.

SEPTEMBER, 1861.

No. 5.

PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

A Memoir on Facial Neuralgia, illustrated by a case affecting the Sub-orbital Nerve. Cured by Excision—with Observations thereon. By Dr. COSTANZO MAZZONI of Rome, Italy.

[Continued from page 505.]

In the female operated on by Berard, the pain extended only along the sub-orbital branches, as we see from Valleix : Il y a dix-huit ou vingt ans que sans cause connue, ni coup, ni chute sur la joue, sans douleurs antécédentes des dents, de la mâchoire supérieure, elle fut prise d'élancement dans le trajet du nerf sous-orbitaire gauche * * * * * les douleurs se repandent dans toute la joue : contractions, convulsions des muscles de la face.* The pain in the case of which we treat was invariably limited to the sub-orbital branches alone ; in this, as in the above, the successful issue (the speedy cure) jus-

* Valleix, Trait. des Névralg. Névralgie trifaciale—douzième observation. Névralgie du nerf sous-orbitaire—resection du nerf—guérison.

tified the complete indication of the resection. Nor does this single observation suffice as regards the seat of the complaint in question: there is also another of purely medical import and not less worthy of study than the former. The various neuralgias are sometimes found in conjunction with certain general morbid conditions; as, for example, with iste hypo-chlorosis, etc., in which cases it would therefore be madness to excise any of the nervous branches affected, as the malady, although it may appear only on certain ramifications, extends through the whole nervous system. In such instances, the neuralgias are found frequently to agonize various nervous branches simultaneously; prosopalgy, for example, will occur in the right side, intercostal neuralgia in the left. They are besides, in the majority of cases, but short-lived, and the pain often deserts one branch to settle on another; we thus sometimes see that the cervico-occipital neuralgia is followed by the cervico-brachial. The general state, however, of the patient, the syndrome proper to chlorosis, * * * the instability and brief duration of the neuralgias, are all so many circumstances that should direct the practitioner to remedial sources of quite another kind, proved by experience to be capable of curing these neuralgias, which well deserve the designation of symptomatic.

But a most powerful cause of ill success and relapses even in cases wherein one may have had in view the resection of the sub-orbital nerve, is to be ascribed to the incomplete excision of the nerve itself. We invite our readers to pay diligent attention to the course of the palpebro-nasal nerve; let them principally direct their attention to the secondary ramification which girds the sub-orbital cavity; let them remark its depth, its divergence from the other branches, beginning from the egress of the sub-orbital foramen. There are some surgeons who have fancied that in the resection they came to a knowledge of all the ramifications of the sub-orbital nerve, by isolating with a * * * all the filaments that emerge from this cavity. It is no easy task, however, nay, I would say, that it is impossible to isolate in this manner even the palpebro-nasal nerve, as it grazes the bone and separates even in the interior of the canal from all other branches; it is difficult, nay, I would say impossible, with a stroke of the bistoury or scissors to excise together with all the

other branches of the palpebro-nasal nerve; while, if one succeeded in cutting the ascending branch of the palpebro-nasal nerve, the descending or reflex, which originates from it precisely where it emerges from the sub-orbital cavity, would still remain intact. To remove, therefore, a portion of the palpebro-nasal nerve requires a minute knowledge of it beforehand; it is requisite to search it out patiently at its origin, in order to incise with safety the reflex branch also. The greatest length of time was employed in making an accurate search after this very branch: it was only then that the neuralgic pain instantly ceased; while it continued although all other branches of the sub-orbital nerve were cut. After this every one will understand the reason and manner of the reappearance of the neuralgic access immediately or shortly after the operation, even when the resection of the sub-orbital nerve may have been effected. The anastomosis of the ascending branch of the palpebro-nasal nerve with the internal frontal and with the sub-trocleator, the union of the reflex branch with the superior labial branches now clearly explain to us the persistency or return of the pain in the sub-orbital cavity, in the upper lip, on the bridge of the nose, on the eyebrow and forehead, in all those unfortunate cases in which we have completely cut the sub-orbital nerve. This is the true reason why the resections performed several times have rarely succeeded, that is, then only when by some happy chance the palpebro-nasal nerve escaped intact. And this is another reason why several surgeons should join to the resection a deep cauterization, which, applied almost instinctively—that is, without understanding the real motive of it—would have been useless and dispensed with if previously the operator had had a just knowledge of the nerve we have so often mentioned. For which reason, no one will accuse me of venturing a hasty judgment in attributing to the accidental * * * of the palpebro-nasal nerve, the two fortunate issues obtained by Berard by means of the excision of the sub-orbital nerve; which he himself was constrained, for his want of success in the other cases, to add cauterization to the bistoury in order to assure success; for by means of cauterization, as Boyer excellently observes, we not only destroy at a given point or part the whole bulk of the nerve, but attack all the nervous fillets which to a considerable extent are derived therefrom; and

which, being capable of participating of the complaint in the said nerve, would, like the principal branch, be susceptible of retaining the pain after the recision. And thus it is that this beautiful discovery of Mazzoni's has cast a new light on surgical pathology. Having pointed out the primary sources of failure, let us now proceed to other considerations.

Among the various classifications of trifacial neuralgia, we think the most important is that by Chaussier, who classifies the neuralgia according to most of the interesting branches of the * * * * although from its precision and admirable propriety it has been adopted by the greater part of authors who have written subsequent to Chaussier; nevertheless, in more recent times, several writers, and especially Berard, have remarked, that Chaussier's classification scarcely ever tallies perfectly with the results of observation; and where he describes a frontal, sub-orbital or an inferior dentary neuralgia, it was necessary to understand that the nerves of this name were principally and not exclusively affected. "Such an intimate bond," reason they, "exists between the three branches of the * * * * nerve, even after their emerging from the cranium as far as the last termination, that it is difficult to imagine how they can be affected separately. Springing from common roots, they have afterwards, it is true, a special destination, but their numerous points of contact in almost every part of the head scarcely admits of their being distinguished as particular nerves. In this manner, each of these branches is in communication with the other two." Valleix agrees almost completely in opinion with Berard, as we may perceive from the following passage: "Lorsqu'on désigne la névralgie trifaciale sous le nom de névralgie frontal sous-orbitaire, etc., il faut entendre, ainsi que l'ont fait remarquer plusieurs auteurs récents, une névralgie qui a son principal siège dans un de ces rameaux, mais qui s'étend le plus souvent à d'autres," (p. 31.) I said almost *completely*; for if, considering the incontestable observations made in regard to neuralgias confined to a sole branch, and especially to the inferior maxillary, he would seem at first sight to incline towards the division of Chaussier, at least as regards the third branch; nevertheless, as the number of neuralgias limited to a sole branch is exceedingly small compared with those that propagate themselves

to several branches, whether it be that in the generality of cases of frontal neuralgia the patient occasionally experiences vague pains which cannot be determined, and because, in fine, in the majority of instances of inferior dentary neuralgia, (wherein he himself confesses that the pain often seems really restricted,) while this exists in a considerably violent degree, the branches of the ophthalmic and superior mascellar nerve are likewise affected with a very aching pain; swayed by these considerations he steers a better course, and one that better corresponds with skilled practice, by regarding the facial neuralgia as one and the same affection, no matter in what part of the * * * * nerve it may have its seat.

As for the rest, however this may be, the simple neuralgia of the upper mascellar nerve is regarded by Valleix and other writers, not only as difficult and exceedingly doubtful, but instances of the pain appearing originally in the said branch are of very rare occurrence; so that he enumerates only two kinds of particular neuralgias; namely, the frontal and the inferior dentary, regarding them as mere unmeaning varieties. "*Quant aux espèces particulières, les néuralgies dentaire inferieure et frontale sont les seules qu'on pourrait reconnaître, en ne les regardant toute fois que comme de simples variétés qui ne meritent pas une description speciale.*" It is a fact proved by daily experience, that in the majority of cases of trifacial neuralgia the pain extends to various branches; however, to regard the confinement of the pain to any of the three branches as a rarity or exception is not in conformity with the results of experience; and the proposition of Antonio Scarpa is still more untenable when subjected to the analysis of facts; for this writer absolutely denies the possibility of the neuralgia being confined to one of the three branches, inasmuch as according to his mistaken idea from the point of appearance and from the extension of the pain, we should fix the origin and extension of the neuralgia; the neuralgia may attack the whole extent of a given nerve, from its first origin, from the greater centre even to its remotest peripheric ramifications, and the pain appear only in the points of its superficial and cutaneous course where precisely it is more susceptible to the exciting influences of external agency.

And as for the opinion of Valleix, it is first of all opposed to

analogy and induction drawn from facts associated with other branches of the nervous apparatus.

Wherever nerves exist, their ramifications and terminal peripheric extremities cross and interlace each other so as to constitute a most admirable net, which of itself, even if all the other systems composing the viscera, organs and tissues, would suffice to preserve the form of human organism. This union (this interweaving) impressed the ancient anatomists with the belief that the nervous substance was cast in the anastomoses, and that one nervous extremity * * * in the other after the manner of pottery—a theory demonstrated to be erroneous by Müeller, Valentine, Milne, Edwards, and Charles Robin. It was from the researches of these distinguished micrographs and physiologists, that each nerve was considered as a distinct tube or filament from its first origin to its termination; which * * * can apply to other nerves even of different natures and functions without their substances being fused, while a real fusion occurs in the neurilemi. Just in the same way as we often perceive some nerve which issuing from its fascio proceeds by means of the neurilematic anastomosis to accompany the nerves of other fascia endowed with a different nature, it may likewise be understood how the morbid condition, whatever it may be, constituting the neuralgic affection developed in any fascia, may isolate itself in its own ramifications, although they may connect themselves with others of the adjoining nerves. From all this, and moreover considering the true mechanism of the nerves in the formation of the plexus, I am disinclined to believe that the numerous points of contact peculiar to the nerves in different places, and especially in the common organ of tactile sensation, are in anywise antagonistic to the idea of neuralgic isolation; in the same manner as the union in the face of several nervous filaments endowed with different, nay, antithetic properties—for example, the centripede and centrifugal branches in one and the same fascia, without one branch participating of the function of the other—is not inconsistent with medical observations. If, therefore, the three branches of the * * * are connected by an intimate bond, a similar connection exists between the branches composing the brachial, cervical, lumbar and plexus sacer, and the branches issuing therefrom. Nevertheless, no matter with what degree of

patience we undertake to examine the various records of the neuralgias, quoted by different authors, we shall meet with manifold examples of neuralgia confined to a single branch of the different plexus, or to a single ramification of the various nervous branches. It would be a task of too great magnitude for a paper of this kind to analyze them individually. I will therefore confine myself to the mention of a few facts.

On the posterior and superior part of the neck, even if the slightest part of the skin be removed, we have immediately in view a plexus known under the designation of the posterior cervical, made up of the numberless anastomoses, formed by the posterior branches of the four leading cervical nerves. The entire portion of the vertebral column, comprised in the span of the first four vertebra, is taken up by nervous fillets of the first four pairs, which traversing the muscles proceed towards the * * * of the skin, where they spread out their superficial anastomotic branches.

Among these branches is one belonging to the second pair, designated by Arnold as the *great occipital nerve*, which traversing the main complex muscle, after which it becomes subcutaneous, and afterwards coming in contact with the occipital artery, runs upwards, and here branches off into a considerable variety of filaments, which in their divergency mask the occipital region. Such are the considerations which I have to offer touching the posterior branches of the first four pair of cervical nerves, which on one side form a considerable number of nervous fillets constituting with their respective anastomoses an intricate net called the posterior cervical plexus; and on the other an important ramification, which after having formed numerous points of union with the other branches, after becoming particularly subcutaneous, proceeds at last to shoot out its peripheric extremities even to the * * * and mastoideal apophyses.

Now, it so happens that Berard, after having made numerous investigations, has illustrated a new neuralgia, which has its seat exclusively in the great occipital nerve; and of this, some previous writers had afforded a slight trace, so confused, however, as not to be productive of any benefit to the diagnostic art. In most cases, this neuralgy begins to circulate at the * * * from its anastomosis with the exterior frontal branch of the inferior

mascellar; however, there are well accredited instances in which the neuralgia occurred only in the great occipital nerve without communicating itself to the * * * where the darting pain originating from a variable point between the mastoideal apophosis and the vertebral colon ascended to the occiput at a greater or less distance from the ear, radiating so far even as the parietal * * * ; thus following the course of the great occipital nerve and its branches. The name therefore given by Berard to this new neuralgia is inapplicable, to-wit: "*Nouvelle espèce de tic douloureux de face*," while the designation given to it by Valleix is exact; namely, cervico-occipital neuralgia. And now coming to the brachial plexus, we must say, that although Valleix, in imitation of Berard, in consequence of the * * * nerve and the anatomical disposition, or, to speak more properly, in consequence of the numerous points of contact of the branches composing the brachial plexus, is inclined to consider this as a sole organ, and consequently pretends to advocate the sympathetic unity of the brachial neuralgia. The profound and admirable studies of Prof. Fillippo Tusana of Milan, completed in this year, have evidently proven the untenability of the neuralgic synthesis of the brachial plexus, and the gratuitous admission of this neuralgic unity, demonstrating that no such thing as a neuralgia of the brachial plexus exists; but that there are as many neuralgias as there are fascic ramifications and branches composing the plexus of this name. Let our readers peruse this most excellent work, and they will find that Tusana has drawn this deduction from a most rigorous and minute analysis not only of his own observations but of those quoted by Valleix, in his chapter on Cervico-brachial Neuralgia. I will conclude by drawing the attention of our readers to the case of cubito-digital neuralgia, cited by Antonio Scarpa, wherein the pain, as in all cubital neuralgias, was not only limited to the mere course of the cubital nerve, but did not even extend through all its length, inasmuch as the darting pain originating in the palmar superficies of the * * * communicated itself downwards to the two last fingers. And as regards the ischiatic nerve, it also presents numerous anastomoses among the ramifications of its principal branches, and also affords numerous points of union with the crural nerve along the thigh and in the interior of the * * * with all the

nerves of this cavity ; so that the plexus sacer from its anatomical disposition and considered in regard to the neuralgia, may be regarded as the interior portion of the ischiatic nerve. And this also presents neuralgia by no means rare or exceptional ; but, on the contrary, of frequent occurrence, and limited to certain points of its course.

If we examine the data of this neuralgia, designated by Valleix as the complex femoro-popliteal, we shall find that in some cases, the darting pain occupied the hip exclusively (Valleix Obs. 48) ; in others, only the knee (Obs. 50) ; in others again, the ham, and occasionally only the outer side of the leg ; nor are there wanting instances in which the pain was confined to the foot. In the month of June of the present year, I excised the anterior tibial nerve of a Jewish girl to free her from a most virulent neuralgia to this ramification of the exterior popliteum. This case was remarkable for fierce * * * joined to the affection of the interosseal branch of the perronierum. Every remedy which the physicians applied to the uterine * * * proved unavailing, while the * * * instantly disappeared on the excision of the tibial nerve. A curious fact this, and difficult to be accounted for, as it is perhaps only in the theory of reflex movements that we can look for its explanation. For the same reason as above, Valleix includes all those neuralgias which can invade the intercostal and dorsal ramifications under the appellation of dorso-intercostal neuralgia, that is the slender bond which intervenes between the dorsal and intercostal branches of the twelve spino-dorsal pairs. “ Si je ne distingue pas la névralgie dorsale de la névralgie intercostale proprement dite, quoique j’aie observé des exemples de ces affections entièrement indépendantes l’une de l’autre, c’est que j’ai été guidé par les mêmes motifs qui dans les névralgies précédentes m’ont fait rejeter les divisions trop restreintes.” (Chap. 4me, p. 333.)

To avoid digression, I will refrain from dwelling further on the anatomical distribution of the twelve dorsal pairs ; I shall only intimate that in spite of the numerous anastomoses occurring among the intercostal branches with the thoracic branches deriving from the brachial plexus, with the nerves of the abdominal parietes ; in spite of the frequent anastomoses of the dorsal branches with each other and with the lombo-abdominal ramifica-

tions, the history of the neuralgias under this name and daily experience, instead of rare and exceptional cases, afford frequent instances in which the pain is confined at one time to the sixth, at another to the seventh, and again to the eighth intercostal space, sometimes to a circumscribed point of the spinous region of the vertebral * * * to the origin of the great psoas muscle and of the * * * of the loins, to the middle portion of the various intercostal spaces; and sometimes, in fine, to the point of union of the cartilages of the false ribs with the cartilage of the seventh rib, and of this latter with the sternum. Practitioners are now-a-days unanimous in regarding as a neuralgia of certain ramifications of the pneumogastricon, and even of its recurring nerve exclusively, that very troublesome and painful sensation, usually likened to a pill, which in hysteric females originates in the epigastrium, slowly ascends as far as the throat, and there determining at one time the aphony, at another the dysphagia, produces that spasm in the glottis which threatens to choke the patient, and immediately precedes those great motions of flexion and extension of the trunk or limbs which characterize hysteric convulsion; in a word, the hysteric * * *, designated by Prof. Beau under the name of *aura gastroglossica*, is nothing more than the neuralgia of the recurring nerve. (*Traite experimental clinique d'auscultation*, p. 501. *Revue des malad. à bruits artériels*.)

But in order to prove the real existence of the partial neuralgias of the * * * we have not the least need of analogy; while Valleix, himself, in his *Twelve Observations*, supplies us with a proportion which certainly exceeds the computation made by him; namely, of 2 to 7. In fact, if we consider well, we shall find that the Observations 1st, 6th, 7th, and 10th, regard cases of simple frontal neuralgia. The 12th is a limited neuralgia, entirely limited to the superior maxillary nerve (Berard's), which we have frequently mentioned; the 11th is an exclusive neuralgia of the inferior maxillary, and more especially of the inferior dental; the 5th, if we preclude a slight indisposition scarce worthy of notice in the dental arches and occiput, may justly be said to be merely restricted to the ophthalmic branch; the 4th, having its origin in the ophthalmic branch, radiates even at its commencement to the superior maxillary; while it is only in the 2d, 8d and

9th, that the three branches are attacked. Even if every other proof were wanting, our case alone would furnish an incontestable instance of a neuralgia, not only limited to a single branch of the * * * , but what is more, only to some single ramifications of a sole branch; namely, to the cutaneous branches of the superior maxillary nerve. It is true, that, at the close of the fifth year, the pain communicated itself also to the ophthalmic branch. This expansion, occurring after the neuralgia for the lapse of four years and a half, was constantly confined to the sub-orbital nerve, is no objection why we should not retain it as proper exclusively to the sub-orbital nerve. This consociation of sufferance of the 1st branch should, with good reason, be regarded as a precarious and merely sympathetic sensation, attributable to the virulence of the pain resident in the sub-orbital branch, especially in the nasal point, designated by the anastomosis of the naso-palpebral nerve with the interior frontal; let it then be considered—1stly, That the pain in the ophthalmic branch disappeared on the incision of the entire sub-orbital nerve, all the ramifications of the frontal remaining intact; 2dly, That no fixed painful point was detected by means of pressure along the course of the frontal nerve; 3dly, That the pain never awakened recently either spontaneously or artificially in the supra-orbital foramen or any other point along the course of the frontal nerve; 4thly, That the pain consequent on the operation never again appeared on the ramifications of the frontal nerve; 5thly, That this participation happened after four years and a half, when the pain in the sub-orbital nerve was at its highest; so that had the excision of the sub-orbital nerve been performed three or four months before, there should have been no painful sensation of the ophthalmic branch; 6thly, That when the ophthalmic branch is attacked idiomatically by the neuralgia together with the maxillary branch, the pain arises in the former generally at or not long after its appearance in the latter; nor is the excision of the sub-orbital nerve of any avail in dissipating the accompanying frontal neuralgia which still continues, because it is influenced by an alteration peculiar to the nervous pulp and of the neurilemma, or proper and permanent want of equilibrium in the nervous fluid, whatever it may be; 7th and lastly, That it is natural for every neuralgia, however limited, to radiate after several years'

duration to the neighboring nerves, whether this may happen from a law of reflex motion or on account of the simple reason of anastomatic conjunctions. This case of ours, ultimately so severe, of neuralgia of the sub-orbital nerve, affords a marked exception to another sentence found in Valleix, to-wit: "*Les cas de névralgie bornée à une seule branche sont ordinairement légers et ne durent que peu de jours,*" (page 51;) for we had to treat with a neuralgia limited to a few ramifications of the * * * * , which of itself was extremely violent, and lasted five years; the virulence of the pain continually increasing.

After what we have adduced, the proposition also of Scarpa appears to us very untenable, nor do I find it sanctioned by experience. And, indeed, even precluding the arguments adduced, is it not a capricious hypothesis, an arbitrary decision, to regard the neuralgias as diffused through the whole nerve, even when the pain manifests itself only in a few ramifications? On what data can we arrive at this diagnosis? On the nature perhaps of the morbose causes? By this standard nothing positive or certain can be obtained. For if the etiological standard be of little aid (not to say that it generally leads even to error) in the diagnosis of the greater part of human maladies, we would venture any sum that it becomes all but useless in regard to the genesis of neuralgia. From the symptoms perhaps? The only symptom of neuralgia is the pain; and this in many cases is limited to a part of a given nerve or to some of its ramifications. Perhaps from the remedies applied.

We have here again the uncertainty and obscurity of the etiological standard. We know nothing positive of their mode of acting or extension of their action; we only know that frequently the topical remedies avail in dispelling the pain limited to certain points of a given nerve, without being assured whether the medicamentose action has been completely local, or has extended to the whole nerve. From the autopsies? Few in number, and by no means conclusive, even these similar to the causes and remedies yield no assistance.

"*L'anatomie Pathologique* (says Cruveilhier justly) *des nerfs est à faire.*" Hence we do not hesitate to denounce the proposition of Scarpa as arbitrary and hypothetical, and wanting the

principal support—namely, a correspondence with facts, with observation, and with daily experience.

While this case of which we speak corroborates more than ever the theory of Bell, of Berard, and of Müller, which ascribes facial neuralgia altogether to the branches of the * * * * exclusive of the facial, it does not at the same time carry out the opinion of Antonio Scarpa, who solemnly prohibits any surgical operation whatever in the essential neuralgias, that is, in those not produced by neuromi, * * * *, or tumors of any kind compressing the various nervous branches, by extraneous bodies at a great depth; *in which (to use his own words) the morbid ferment is not limited to the centre whence the painful radiations issue.* This opinion is akin to that already mentioned; namely, that in neuralgias, (except those depending on irritating local causes, as * * * neuromi, tumor, extraneous bodies, etc.,) in which no irritating local cause is detected, the pain does not totally manifest the seat of the complaint which propagates itself even to the root of the nerve, but the point in which the affected nerve is nearer than elsewhere to the surface of the body.

There is no doubt but that in some neuralgias, occasioned by the general disorder of the nervous currents, the general morbid condition of the nervous apparatus, or by complaints of the great nervous centre, or by bodies compressing the cerebro-spinal substance in the neighborhood of the origin of the nerve, (as, for instance, exostoses, fungi of the dura mater, or of the bones of the cranium,) the neuralgic pain communicates itself to the whole nerve; however, there are various cases in which none of these causes exist; no tubercle, no * * * on the more superficial parts of the nerve; and yet the pain is really confined to certain branches, to certain ramifications of the nerve, with regard to which the operation is therefore successful. However difficult it may be to give a plausible explanation thereof at this time, especially when the zoo-electric theories are so much in vogue for the explanation of the nervous functions, and consequently of their functional disorders which constitute their morbid condition; the rigorous observation of facts—among the first of which we rank our case, and the two observations of Berard, in which there is no mention of an alteration in the nervous tissue or in the neurilemma—authorize the surgical operation; provided, however, they be not

accompanied with those conditions which we have said should * * * all manipulation of any kind. Even here, to regard as extended to the whole nervous branch those neuralgias in which no irritating local cause is apparent, and the pain nevertheless is confined to cutaneous ramifications and to certain branches of the nerve, would be to explain a phenomenon * * * with a purely capricious hypothesis. In the profound obscurity which hangs over the physiological laws of the nervous system, and consequently over the etiology and pathogenesis of nervous diseases in general, and especially of the essential neuralgias, as no perceptible alteration of structure, no morbidness is generally detected along the whole length of the nerve attacked by neuralgia, I think we should refrain from all explanation, and adhere instead to the only one as yet, namely, simple observation.

In perusing the account of Cornia's complaint, the reader must have observed, that during the phenomenological syndrome, which developed itself after the operation, the patient's life was nearly threatened by a terrible complication; that is, by miasmatic fever, which after a few attacks assumed such violence as nearly to become * * *. The phenomenological picture was made up of three morbose elements; namely, suppurating inflammation of the throat, accompanied by feverish burnings, very analogous to the irregular attacks of our miasmatic fevers, an accumulation in the stomach and small intestines of bilious * * *; and, finally, the specific morbose condition, whatever it may be, which is the efficient cause of our intermitting fevers. Had not an attentive examination of all the * * * of gradual phenomenological development, led us, amid such obscurity, to discern the malign and treacherous fever, we should have lost our patient, after such brilliant operation, and the malignant fever would thus have served as a pretext to certain ill-intentioned and retrograde minds to atrociously blacken the reputation of the practitioner, by imputing to the operation and manipulation that which was really due to a deplorable accidentality.

As for the rest, this case of ours, in spite of the said complication, was crowned with full success, and that more promptly than Bernard's, in which the cicatrix healed very slowly, as the bone, which was slightly bared in the operation, was forced to exfoliate

superficially; and when three months after the operation the patient left the Hospice of Salpetriere, there still remained in the part operated on a slight crust, produced by the drying up of the purulent humor which issued from the the inflammation, especially of the periosteum; whereas, in our case, the cicatrix was completely healed in nine days, and a whitish thread of inodular, fibrous tissue was the only testimony that remained of our operation.

Numerous other practical observations, numerous applications of modern physiological teachings, could we have adduced from the case in question, if we had not already trespassed too much on the patience of our readers, and if the penning of further considerations would not seem too prolix to be compatible with the nature of record having to do with but one special fact. “*Arduum scribenti ac per difficile semper fuit ea angustis limitibus coercere, quæ nullis fere terminis sunt definita.*” (Lealdani.)

ARTICLE II.

Phthisis Pulmonalis. By CHARLES R. S. CURTIS, M.D.,
of *Clarksville, Missouri.*

In my previous article, my principal object was to discuss the pathology of phthisis pulmonalis, and, though I alluded to the history and treatment, it was in general terms and not with a view of suggesting new or improved methods. I am happy to say that so far as treatment is concerned, the views expressed in this Society correspond very nearly with my own; at least, if any differences exist, they are not of sufficient importance to call for their discussion here. In offering the views therein expressed in regard to the pathology of tuberculosis, it was expected they would encounter opposition, and in this I have not been disappointed. Long cherished opinions are not easily renounced. They become to us as old friends, and we are apt to guard them with jealous care, even sometimes against the encroachments of truth. And it is well that this is the case, because if it were not so, our profession would constantly be liable to be led away from well grounded conclusions by the delusive theories of every imag-

inactive mind ; and the science of medicine instead of being, as it now is, a firm fabric reared upon the experience and observation of ages, would be a heterogeneous mass of vascillation and uncertainty.

At our last meeting, a paper was read in opposition to my theory, in which many of the objections that would suggest themselves to the minds of the members of our profession are ably set forth. And, in order to bring the subject more clearly before your minds, and for the purpose of investigating the merits of those objections, I shall take the liberty of introducing a few quotations from the above mentioned paper, calculated to show the basis on which its arguments rest. And inasmuch as the views I have expressed on this subject are peculiar to myself, (at least I have never met with them elsewhere,) I have concluded to extend my remarks upon them ; trusting that they may have a tendency to awaken still further enquiry and investigation, and that they will be received in that spirit of candor and fairness which is essential to an impartial judgment. And here permit me to remark, that since the publication of my previous article I have been most agreeably surprised to find a most powerful advocate of many of the views therein set forth, in Prof. Rudolph Virchow of the University of Berlin, as shown in the review of his work on "Cellular Pathology" published in the Amer. Jour. of Med. Sciences, April, 1861. This subject, however, will be referred to hereafter, and the points of agreement and disagreement explained.

It will be recollected that in my previous article, I took the position that the first link in the chain of morbid action consisted in a disturbance of the just equilibrium between the vital and chemical forces acting in the ultimate cell structure of organs. As the existence and influence of this vital force has long been recognized and taught by physiologists ; and, as it has been regarded as exercising a distinct and controlling influence in the production and development of organized tissues, I must confess I was not a little surprised at some of the positions taken in that paper. We will therefore proceed to examine them. On page 2, the writer says : "I contend that the vital force is the thing produced within the organism by the arrangements of that organism and the chemical actions going on within it. That it results from ad-

justment and chemical action. And if this be true, and I will endeavor to prove it, the idea suggested by Dr. Curtis, that the vital action controls the chemical must be obviously fallacious." After calling our attention to the condition of a seed lying for years free from heat and moisture without change, and afterwards being subjected to the influence of these agents begins to sprout; and arguing from this fact, that the sprouting is the result of the decomposition or chemical action taking place in the seed; and referring to the condition of hybernating animals, lying dormant in winter and without signs of life and resuming their activity in summer; he proceeds to say, "I presume the fact that the vital force results from chemical action in vegetables and in hybernating animals will not be doubted, and it is evidence sufficient for me, at least, that it is thus produced in all other animals." Again, he says: "Now force implies action, and there is not a dormant force in the molecules to be called into existence by chemical action, because force cannot be dormant. The very idea of force being dormant is an absurdity, and force must result from some cause and cannot be an independent principle." Again, he says: "Now the vital force is life itself."

These are the positions the writer of that paper has taken in opposition to the theory I have suggested. Now, let us examine these positions: *First*—"The vital force is the thing produced by the arrangements of that organism and the chemical actions going on within it." *Ergo*, vital force is chemical action! Again, "the vital force results from chemical action in vegetables and in hybernating animals." *Ergo*, vital force is chemical action! Again, "the vital force is life itself." Consequently, life itself is vital force! Vital force is chemical action! *Ergo*, Life itself is chemical action! Chemical action is life itself!

But let us see how these views compare with those of some of our most distinguished physiologists. Mr. John Hunter, in speaking of the properties of life, * says: "It is something that prevents the chemical decomposition to which dead animal and vegetable matter is so prone; that regulates the temperature of the bodies it inhabits, and is the cause of the actions we observe in them. All these circumstances though deduced from an extensive

* See Mr. Abernathy on Mr. Hunter's Theory of Life.—Fothergill's Med. and Phy. Jour., Vol. 32, page 422, A.D. 1815.

contemplation of the subject, may however be legitimately drawn from observations made on the egg. A living egg does not putrefy under circumstances that would rapidly cause that change in a dead one. The former resists a degree of cold that would freeze the latter, and when subjected to the genial warmth of incubation the matter of it begins to move or to be moved so as to build up the curious structure of the young animal." From the above passage, it will be observed, that Mr. Hunter recognized the existence of a vital force in organized tissues that modified and controlled the chemical. The following passage, we introduce from the preface to the anatomy of the human body by J. Cruveilhier, M.D. & Prof., Paris: "Living bodies are subject not only to physical but also to vital laws, the latter of which are constantly struggling against the former. This struggle constitutes life. Death is the triumph of the physical over the vital laws." The vital laws here spoken of are the same as that which by other authors has been termed vital force. Mr. Carpenter, in his Principles of Human Physiology, speaking upon this subject, says: * "But after every possible allowance has been made for the operation of physical and chemical forces in the living organism, there still remain a large number of phenomena that cannot be in the least explained by them; and which we can only investigate with success, when we regard them as resulting from the agency of forces as distinct from those of physics and chemistry as these are from each other. It is to such phenomena that the name of vital is properly restricted; the forces from whose operation we assume them to result, are termed *vital forces*; and the properties which we must attribute to the substances exerting those forces, are termed *vital properties*." In relation to the seed to which we have been referred, Mr. Carpenter says: "Such a seed is not alive; for it is not performing any vital operations. But it is not dead, for it has undergone no decay; and it is still capable of being aroused into active life when the proper stimuli are applied. And the most correct designation of its state seems to be that of dormant vitality." It would seem almost superfluous to introduce further quotations, to prove the existence of this vital force, which we regard as indispensable to the development of all

* See Carpenter's Prin. Hum. Phys. for 1856, page 212.

organized tissues. But as all the arguments that have been offered against my theory seem to hinge upon this point we will tax your patience by introducing one more witness. Prof. Leibig, in his Organic Chemistry in its application to Physiology and Pathology, observes: "In the animal ovum, as well as in the seed of a plant, we recognize a certain remarkable force, the source of growth or increase in the mass and of reproduction or of supply of the matter consumed; a force in a state of rest * * *. This force is called the vital force, or *vis vitæ*, *vitality* * * *. The vital force causes a decomposition of the constituents of food and destroys the force of attraction which is continually exerted between their molecules. It alters the direction of the chemical forces in such-wise, that the elements of the constituents of food arrange themselves in another form and combine to produce new compounds * * *. The vital force is manifested in the form of resistance, inasmuch as by its presence in the living tissues, their elements acquire the power of withstanding the disturbance and change in their form and composition, which external agencies tend to produce; a power which simply as chemical compounds they do not possess * * *. In the animal organism, we are acquainted with only one cause of motion; and this is the same cause which determines the growth of living tissues, and gives them the power of resistance to external agencies; it is the *vital force*."

It would be a work of superrerogation to offer further arguments on this subject. The views entertained by the distinguished gentlemen I have just quoted, it will be seen, are directly antagonistical to those advocated in the paper opposing my theory; and they are so clearly explained, and so firmly based upon sound judgment and philosophy, as to carry conviction with them. We would simply remark, then, that there are no known chemical forces, by the action of which the simplest organic structure may be formed; and without acknowledging the existence of a vital force, a power superior to, and distinct from, all chemical agency, it will be impossible to account for or explain any of the phenomena that characterize organic life. We will, therefore, consider this point settled, unless some more potent argument is brought forward than any we have yet seen to convince us to the contrary.

If, then, the positions taken on this subject in that paper, in opposition to my theory, are erroneous, his whole argument, being based upon them, necessarily falls, and we might here close this article; but he takes occasion, in the latter part of his remarks, to ask a question which we have not failed to ask ourselves. He asks, "Might we not as reasonably conclude that it produced any other disease, whose origin we do not understand, as that it produced consumption? Or, would there be any reason in the belief that this disease alone originates there, and all others begin somewhere else?" In answer to the above enquiry, we would remark, that we are far from believing "that this disease alone originates there, and all others begin somewhere else." On the contrary, we believe there are many other diseases whose origin can rationally be accounted for in no other way. We were at that time treating of phthisis pulmonalis, and it did not comport with the character or limits of that article to refer to the relation which our theory in regard to the origin of this disease bears to that of others.

We are not one of those who are wedded to one particular theory in regard to the origin of disease in general, whether solidist or humoral. Neither do we hold ourself bound to receive the opinions of others as the law and the testimony, without stopping to give the subject a personal investigation. And although we believe we have as much veneration as most men for time-honored conclusions, we are yet ready to yield them up whenever convinced that they are erroneous. Old theories, in many respects, resemble old furniture, which for years has lain undisturbed in some castle of the olden time. In the course of centuries, it sometimes becomes necessary to shake and brush off the dust that has accumulated upon it; and in doing so, we are apt to discover flaws in the workmanship and spots where the moth and the rust have begun to corrupt, which this very dust of ages has only served to fill up and conceal. Therefore, occupying the position we have here laid down, we do not hesitate to say, that, in our humble opinion, there could be no greater absurdity than the threadbare theory, that all diseases have their origin in quantitative and qualitative lesions of the blood; and the wonder is, that so utterly unfounded a theory should have ever found support in the minds of medical men. Yet, notwithstand-

ing the fact that the microscope and the laboratory have exhausted their powers in the vain endeavor to discover this peculiar morbid something in the blood, which was to be the *ultima thule*, the original starting point of disease, and have returned us the results of their investigations barren of any evidence in support of such a view, there are still found many talented medical men who cling to it with unabating tenacity; and are ready to pronounce any theory that may be suggested that does correspond with it as wholly absurd and untenable. We do not claim for our views in regard to the origin of tubercle, infallibility. But we do claim that they are more reasonable than any we have yet seen advanced; and especially more so than the blood theory. Whether they will prove to be of any practical advantage should they be found correct remains to be seen. It is certain, however, that we cannot hope to intelligently combat disease unless we base our efforts on a correct understanding of its seat and origin.

We do not propose at this time to wade through the arguments in regard to the influence which a disturbance of the just equilibrium between the vital and chemical forces, acting in the ultimate cell structure of organs, may exercise in its application to phthisis pulmonalis; but will proceed to consider the influence such a disturbance may have in some other diseases as a primary cause. We will therefore call your attention to a consideration of the following diseases: Carcinoma of every degree and kind; benignant tumors and morbid growths of every description; ramollissement or softening of the brain; fatty degeneration of the liver and of the heart; aneurism; gangrena senilis; elephantiasis; Bright's disease of the kidneys, &c., &c. Now these diseases, although entirely different in many respects, have a resemblance in others: they resemble each other in their local nature; and, although reacting upon other organs, they may produce general derangement of the system, such derangement is always secondary, the first perceptible lesion being always exclusively confined to a particular organ or part. They also resemble each other in the fact that the first manifestation of the disease takes place at a time when the blood is in a perfectly natural state, containing all the elements that it is known to possess in health; (and this is an evidence that they are not blood diseases;) and as there is no resemblance between them and in-

flammatory diseases, they are alike in this respect; and in all these particulars they resemble tubercular consumption.

But let us examine them more particularly: We will first consider the subject of cancer. There are a great many varieties of this disease mentioned by authors, but we have no occasion to enter upon their discussion here. It is sufficient for our purpose to know that they are all modifications of the same disease and have their origin in the same causes. What those causes are has long been a source of doubt and uncertainty in the minds of medical men. Some have supposed it to have its origin in a low chronic grade of inflammation in a part; but such a theory cannot be sustained, especially since it is known that inflammation may exist in any and all parts of the system for any length of time without giving rise to cancerous disease; and it is also known in many instances to have made its appearance in parts without any possible evidence of inflammation having occurred. Others have believed it to originate in a depraved condition of the blood; that the blood by some mysterious process becomes impregnated with a peculiar morbid matter which generates cancerous disease; but this theory certainly seems less probable than the former; because in many cases the blood is found perfectly healthy; (the patients themselves often being otherwise in the enjoyment of excellent health;) which condition continues until the secondary effects of the disease have corrupted it. And in addition to these circumstances, there is one other consideration, of the greatest importance, which must not be overlooked, and which is as applicable to tuberculosis as to cancer; and that is, that *the blood has no direct formative power within itself*, and consequently cannot directly form even the simplest organ of the body—its purpose in this respect being to distribute through the molecular structure of organs the material suitable for their growth and development, which material is selected from the mass by the molecules, (for the molecules have a discriminating power of selecting from the blood such material as is best suited for their growth and development and rejecting that which is unsuited,) and by them so elaborated as to enter into the formation or subserve the function of the organs which they represent. Bearing upon this point and in opposition to the doctrine of “free cell development,” Prof. Virchow most ably remarks: “Even in pa-

thology, we can now go so far as to establish as a general principle *that no development of any kind begins de novo, and consequently as to reject the theory of equivocal (spontaneous) generation just as much in the history of the development of individual parts as we do in that of entire organisms.* Just as little as we can now admit that a *tænia* can arise out of saburral mucus, or that out of the residue of the decomposition of animal or vegetable matter an infusorial animalcule, a fungus, or an alga, can be formed, equally little are we disposed to concede, either in physiological or pathological histology, that a new cell can build itself up out of any non-cellular substance. Where a cell arises, there a cell must have previously existed, (*omnis cellula e cellula*,) just as an animal can spring only from an animal—a plant only from a plant.” Consequently, we cannot regard cancer or tubercle as the direct result of a depraved condition of the blood without either claiming for the blood a direct formative power, or denying to the tissues their property of discriminative selection, either of which positions would be contrary to the known and acknowledged principles of physiology.

That the material of which these morbid products are formed is derived from the blood, we would not be understood to deny; but we claim that such material is derived from normal healthy blood, and not blood in a depraved condition. The same blood, for instance, which supplies to an abnormal malignant growth the material for its development, supplies to all the organs of the body healthy material for growth and function. In other words, this morbid condition of vitality, having once become established in a given organ or part, possesses in its ultimate structure the same power of discriminating and selecting from the blood the matter they require, as do the molecular structures of healthy tissues. The same condition is observed in the vegetable world. From some cause an excrescence begins to form on a tree or plant. This unnatural action having once been established, for years, or perhaps during the whole life of the tree or plant, this morbid growth derives from the healthy sap the material for its increase, just as the body and branches derive their support from the same source. Another important proof of the incorrectness of the blood theory is found in the fact that it has been demonstrated *

* See *Descrip. des Maladies de Peau*, p. 118; Biett and Dupuytren, *Dict. des Sciences Medicales*, t. 3, p. 677.

that "the carcinomatous matter may be introduced in the form of inoculation into the digestive organs, the serous cavities, or veins, without giving rise to the disease."

The discussion of the blood origin of cancer would hardly be complete were we not to examine some of the circumstances on which such a theory is based. These circumstances seem to be about as follows: Cancerous matter has been found in the blood; it has been found in blood-vessels, ramifying in parts affected; it has also been found in vessels adjoining affected organs; it has also been found in blood effused upon the free surface of membranes. But let us see where it has not been found. It has not been found in the arteries. It has not been found in blood taken from the general circulation. It has not been found in blood taken from any source previous to the local manifestation of the disease. Now what do all these facts signify? Simply that the morbid action having once been established, the cacoplastic products of perverted function may be taken up by the circulating medium and afterwards deposited in other organs or parts. There is no testimony that goes to prove the primary lesion to be in the blood; but, on the contrary, the very fact that carcinomatous matter has never been found under those other circumstances I have mentioned, is sufficient to prove beyond a doubt that this disease can have no such origin, and we are actually driven to seek for the primary lesion elsewhere.

Many other theories as to the origin of carcinoma have been offered by distinguished pathologists; but they are more objectionable, if anything, than the blood theory, and have never been generally received.

In order to ascertain where this primary lesion really exists, it becomes our duty to investigate the morbid appearances at the very earliest possible stage of the disease. From such an investigation, we might reasonably hope to gain some information, at least of a negative character. Upon this point, Dr. Carswell remarks: * "Investigated in this its first stage, we ascertain with greater or less facility that this substance becomes manifest to our senses either as a product of nutrition or of secretion; in the former case, it is deposited in the same manner as the nutritive element of the blood enters into the molecular structure and

* Cyclop. Pract. Med., Vol. IV., p. 84.

assumes the form and arrangement of the tissue or organ into which it is thus introduced; in the latter, it makes its appearance on a free surface after the manner of natural secretions, as on serous surfaces in general." Thus far well. We have found that it makes its appearance after the manner of other tissues and secretions. Making still deeper examinations, by the aid of the microscope, we find this morbid, malignant material, the moment it is discovered to be characterized by marked peculiarities. In its ultimate structure, we find formative cells, differing in shape and appearance from the cells of normal tissues. On this subject, M. Lebert states: "The rule is, that there is a certain kind of cell formation which is typical and characteristic of cancer." Dr. C. J. B. Williams observes: "The peculiar matter of cancer is distinctly a structure consisting of nucleated cells and molecules contained in an areolar or fibrous web of very various density—of these, the cells must be considered the first elements."

We have traced this disease to the farthest point that human ingenuity can reach by the aid of the microscope or other physical means. If we would go farther, we must do so by the unassisted aid of judgment and philosophy. But before we make the effort let us consider for a moment the succeeding history of the disease. We find that this morbid action having once commenced, may proceed with a steady growth, or it may remain dormant and inactive for years, when suddenly, as it were, springing into new life, it progresses with astonishing rapidity, taking possession of every organ or part that intervenes in its destructive course, and transforming them into its own malignant and degenerative material. Thus much for its history.

We will now proceed to consider where the first link in the chain of morbid action began. We have sought for it in the blood; but the microscope and the laboratory have not found it there. Neither can we regard it as the result of inflammatory action. We have traced it to the ultimate cell structure. Here is its first manifestation while all other parts remain normal and healthy. Here, then, in the ultimate cells the first perverted action is found—a molecular and cell growth, whose function and development is abnormal and degenerative, and which has a power of producing in other tissues the same morbid peculiarities that

characterize itself. But whence originated the mother cell of this perverted mass? It could not have sprung from the blood, because the blood has no direct formative power—neither could it have had a spontaneous development—it must have been derived from a once normal cell; but, in order for such a derivation, the normal cell must have undergone a transformation so as to become abnormal. And we can account for it in no other way than by regarding it as originating in some peculiar revolution that has taken place in a parent cell, by which its function has been perverted and its physical and vital tendencies changed. Such a revolution could not have been produced excepting through a disturbance of the just equilibrium existing between the vital and chemical forces acting within it, and by which its functional and reproductive revolutions are governed. This change in the character and products of a once normal cell having taken place, other cells resembling it in every particular, the offspring of the first, would necessarily be produced in a very short time, on the principle that “like produces like.” And, in accordance with the law of molecular motion, these abnormal cells would have the power of imparting their own motion to other cells with which they might be in contact. Thus we can readily perceive how this morbid action may rapidly extend and increase locally. And by the unnatural and depraved products of perverted function being absorbed into the circulation, “the life of all his blood is touched corruptibly,” and the morbid material becomes diffused through all the tissues of the body, and thereby sooner or later eventuate in death.

When we consider the nature of the cell growth of organic life, we find that they are capable of producing an almost unlimited variety of matter, and yet in external microscopic appearance they have a close resemblance; some produce tissues, whose tendency is to quick decay; while others produce tissues endowed with a vitality that urges them on to high and exalted life. These differences can only be explained by regarding the vital and chemical forces acting within them as existing in different degrees of power, according as the organ they compose is intended to subserve a high or low degree of vitality. These conclusions enable us to understand how different diseases, howsoever they may vary in external manifestations or symptoms, may yet have an

origin in the same disturbed equilibrium, differing only in degree. The one may be endowed with a vital force that will drive it on to fungus, and perverted growth, and development, and final destruction. Another may be so feebly endowed that its products are scarcely entitled to rank as organized tissues, and whose tendency is to almost immediate decay.

Regarding carcinoma as originating in this manner, (and we believe observation and philosophy demonstrate it,) its rapid progress, its power of involving other tissues, and all its other phenomena, are easily explained. The law of molecular motion finds a beautiful example here: and on no other principle could its power of involving other tissues be explained. But we have already extended this paper to too great a length. Many other thoughts and arguments might have been presented, but we trust we have introduced enough to awaken interest and secure for the subject your candid and serious consideration.

ARTICLE III.

Case of Abortion in the third month. Adherent Placenta successfully removed. By WM. W. VASSE, M.D., of Randolph county, Mo.

June 21st, 1860. Was called in great haste to see Mrs. M., who had aborted about the third month. She stated that she had felt an uneasy sensation in and about the womb for several hours, and had a few slight pains, which she did not regard as any thing serious, as she supposed she was about becoming unwell, when she suddenly felt something pass from the womb into the vagina; and on making an examination, she found it to be a foetus without placenta or membranes, and in taking it from the vagina she broke the cord from its placental attachment. The slight pains that she had now ceased and she felt perfectly well, though somewhat frightened, as she was by herself. There had been a slight sanguinolent discharge, not amounting to hemorrhage, which now ceased. I found her in the above situation some three hours after she had aborted, and made an examination for the placenta and membranes, but they could not be felt;

the os uteri was dilated to about the size of a twenty-five cent piece. I ordered her to keep quiet in the horizontal position for fear of hemorrhage, and if it should come on to let me know immediately. In a day or two, the bed being rather irksome and she feeling much better than she had for several months, she got up and went about her household duties as usual.

She continued to do very well until June 30th, when she was seized with a violent bearing down pain, which she described as being similar to the pains that expel the child's head in ordinary labor, which brought on a slight hemorrhage and continued until the next day, when her husband called upon me for advice; I prescribed acetate of lead and morphia, internally, and cold applications externally, which relieved her.

July 3d. Her husband came after me in great haste, stating that his wife was flooding very bad and that he did not expect she would be living when we returned. On reaching the house, I found she had indeed flooded very bad, but by the use of cold applications externally, and acetate of lead and morphia internally, the hemorrhage was arrested, and she was somewhat revived; I made examination for the placenta, but it could not be felt, it had not sloughed off—although it was now twelve days since she had aborted—nor had there been any but a very slight discharge and that without fœtus. There were no pains; I remained with her all night; she rested very well. Visited her again in the afternoon; doing well. No hemorrhage.

July 5th. Eight o'clock A. M., visited her again, found her wasting very badly; no pains; all therapeutical remedies failing, I resorted to the use of the tampon, which partially arrested the hemorrhage. A short time after the introduction of the tampon, violent pains came on, which were the first, except the one spoken of above, since the fœtus had passed. I was now in hopes the womb would expel the placenta and prevent any further loss of blood. I let the tampon remain some two or three hours, then removed it, expecting to find the placenta in the mouth of the womb or superior portion of the vagina, but I was doomed to disappointment. Violent hemorrhage coming on again, I sent for my friend, Dr. Robert Terrill in consultation; the hemorrhage, however, was arrested before he arrived by the use of cold to the hypogastric region and introducing pieces of ice into the vagina.

We decided to use the tampon again to prevent any hemorrhage that might come, as she was now very weak, and wait for the uterus to expel the placenta, which was now acting very strongly. I remained all night. About 9 o'clock P. M., the pains ceased and she rested tolerably well.

July 6th. Dr. Terrill met me again; he removed the tampon, and thought he could feel the placenta in the mouth of the womb—which was very high up—but could not get sufficient hold of it with his fingers to remove it. He decided to introduce his hand into the vagina—which had been dilated by the tampon—and remove it if he could; after he had introduced his hand into the vagina, which however occasioned her considerable pain, he found the mouth of the womb had also been dilated by the use of the tampon, and there was no difficulty in introducing his fingers into the uterus, and finding the afterbirth, which was adherent to its side, he removed it from its attachment by pulling and cutting it off with his finger nails. A pain now coming expelled his hand with the placenta. Upon examining it, we found it to be perfectly healthy, and but a very small portion had sloughed off.

Remarks.—This I think is an exceptional case in abortion. As a general rule, in abortion, there is always more or less hemorrhage, either before or after the foetus has been expelled; in this case there was no hemorrhage until nine days had elapsed. The only way that I can account for it is, that the placenta being very closely adherent to the side of womb, and as there was no contraction of it to detach it, it kept the open mouths of the blood-vessels effectually closed until June 30th, when she was seized with the violent pain spoken of above (which brought on the first hemorrhage) which continued at intervals until July 6th, when the placenta was removed as above stated.

I do not know whether introducing the hand and removing the placenta was good practice or not; but one thing was evident, she could not have borne the loss of much more blood; and to have waited any longer for the uterus to expel it, would have been waiting for something that could never have been done, and jeopardizing human life, for it was so closely adherent to the side of the womb that it was with great difficulty that it could be removed even with the fingers—and the hand was better than any

instrument—less liable to do injury to the parts. The hemorrhage ceased entirely after its removal, and she recovered without a bad symptom.

ARTICLE IV.

Operation for Exsecting the Humero-Ulnar Joint. Removing two inches of the lower end of the Os Humeri and over one inch of the Ulna, including also the Cylindrical Head of the Radius. By E. S. COOPER, A.M., M.D., *Professor of Anatomy and Surgery in the Medical Department of the University of the Pacific, San Francisco.*

Case.—Mr. D. P., æt. 19, Australian by birth, was admitted into the Pacific Clinical Infirmary, January 1st, 1857, in consequence of a disease of the elbow-joint of five years' standing. Cause of the disease not determined.

Operation.—Two longitudinal incisions were made, four inches long, over the internal and external condyles of the os humeri. A transverse incision was then made, posteriorly connecting the two first, while the arm was flexed. The tendon of the triceps muscle was divided close to the upper surface of the olecranon process. A heavy bone chisel was then taken and soft parts removed from the articular extremities of all the bones connected with the joint. Over an inch of the ulna was found diseased. Of the radius, the cylindrical head alone had to be removed, but of the lower end of the os humeri two inches were diseased and exsected.

After the diseased portions of bones were exposed, no instrument was used in cutting them away but a pair of very large bone scissors, which I generally use in these cases in preference to any other. In preparing the bones for the use of the scissors, care was taken to keep the edge of the chisel very close to the diseased bones in order to prevent the wounding of any adjacent structures. The ulnar nerve was necessarily divided, but no other important tissue wounded.

The diseased portions of bone being removed as described, the wound was fully absterged and a careful examination of the part

made to see if any diseased bone remained. None being found, the parts were dressed by placing a piece of lint wet with an evaporating lotion, composed of one part of alcohol and ten of water, in the wound. A roller was then applied upon the limb as tightly as the patient could conveniently bear, commencing at the fingers and continuing up to the middle of the upper arm. This was wet with the same lotion, and the wetting repeated every half hour for five days; when the roller was removed a fresh one was put on, and poultices applied instead of the lotion on the outside of the roller. The lint was permitted to remain unchanged for five days longer, when it was removed and a fresh piece replaced in its stead, and which was exchanged every third day, as was also the roller. The poultices were discontinued on the tenth day, and tr. iodine applied to the wound every day, throughout the convalescence, which was completed in about three months.

The roller was kept constantly upon the limb as tightly as could be comfortably borne: *First*, to prevent the parts from swelling and thereby interrupt the development of inflammation, and *secondly*, to consolidate the tissues in the vicinity of the wound, so that there should be no burrowing of purulent matter anywhere in it; the source, by the way, of the greatest trouble and even danger in this class of operations. This burrowing of purulent matter often gives rise to local and constitutional irritation, sometimes of a most exhausting character, bearing the patient rapidly down to the grave, unless an amputation of the limb is early resorted to. Not only this, but the purulent matter pent up in the region of the bone is liable to reproduce the disease of that structure, and occasionally pyemia is the consequence of this secondary osseous affection, the most fatal of all secondary diseases consequent upon operations involving the bones. The importance of consolidating the surrounding soft parts by strong, regular and continuous pressure outside, and leaving a free opening for the discharge of purulent matter, cannot be over-estimated; it is in fact a *sine qua non* in these cases. This patient progressed finely, had not an untoward symptom from first to last, and in six months the limb was restored to a considerable degree of usefulness, which increased gradually for about fourteen months, when the patient resumed his usual avocation of carpenter.

A moderate degree of forced motion was instituted at the end of three weeks after the operation, and continued every day throughout the period of convalescence. This is indispensable to the correct formation of the new joint, and gives rise to little inconvenience or pain to the patient, and is of further importance in view of the egress of any exfoliations of bone, which so frequently occurs after operations of any kind involving the removal of any portion of the osseous tissue.

Having published my views *in extenso* upon this subject, as well as others relating to the after-treatment of operations upon the bones, I shall not dwell farther upon it at present.

ARTICLE VII.

Case of Degeneration of the Substance of the Radius and Ulna. The Shafts of the two Bones becoming identified in structure. Removal of a Longitudinal Section, and Drilling the Bony Substance. Cure. By E. S. COOPER, A.M., M.D, *Professor of Anatomy and Surgery in the Medical Department of the University of the Pacific.*

Case.—Miss M. B——, æt. 12, was brought to me January 10, 1856, in consequence of long standing disease of bone produced by fracture of the radius and ulna, three years previously. There were two sinus openings leading to the bone on the radial side. All the sufferings of this patient were attributed by the parents to a want of skill on the part of the practitioner who had treated her for the fracture, and the surgeon himself, who was inexperienced, was inclined to the same opinion, as he confessed to me in private. Such was not the case, however, much as the practitioner may have lacked knowledge and experience. The structural changes of the radius and ulna were owing to some peculiar condition of the system at the time of the injury predisposing to disease of bone so often found in California. In fact, there is something very remarkable in this tendency to disease of bone in our climate, but which having been fully discussed in some of my former publications shall not be dwelt upon now.

Operation.—An incision was made at once down to the bone, commencing a little above the external condyle of the os humeri

and extending upon the radial side to the radio-carpal articulation. The tissues around the bone had become so much consolidated, and the cortical portion of the bone so soft, that the first incision was found to have entered the bone to a limited extent in several places, though unperceived at the time of making it. The periosteum was six or eight times its usual thickness.

The soft parts being thus opened freely to the bone, a chisel was next taken and the bone decorticated—the periosteum and other tissues being peeled off together. It was then found, that, instead of two, there was but one bone, and that this was at least four times as large as the radius and ulna both put together in the normal state. The articular extremities were the only evidences you could discover of the former existence of the two bones belonging to the forearm.

The bone being denuded, its real nature could be distinctly seen. The outer portion, as stated before, was very soft, while the inner was much more so than natural bone, and contained a number of small abscesses, as found on removing a longitudinal section, in the following manner: One side of the entire bone being exposed, longitudinal sections were made with Hey's saw, about an inch apart, into the centre, reaching from half an inch of the humero-ulnar articulation to the radio-carpal joint. The extremities of the intervening portion of bone were then separated from their attachments by the chisel, when it was readily pried out by the same instrument. This being done, numerous small abscesses were found in the centre of the bone. And it was at this time that the entire absence of a separate or individual structure of both radius and ulna could be distinctly seen. Not a trace of the interosseous ligament, as well as that of the radius and ulna, was occupied by a soft bony formation, which did not at any point possess that solidity which belongs to the shafts of the bones of the forearm in a normal state.

After the removal of this piece of bone, a drill was used, and about a dozen holes made into the remaining portion of the bone in different directions. A pledget of lint was then laid in the wound and a roller around the limb as tightly as the patient could conveniently bear, commencing at the fingers and continuing above the elbow. This dressing was wet with an evaporating lotion composed of one part of alcohol and ten of water, and permitted

to remain for seven days, when the roller and lint were changed for fresh materials, and poultices substituted for the evaporating lotion. Tr. of iodine, slightly weakened, was poured into the wound and on the arm every day after the tenth from the operation. This course was continued for about six months, when the patient was entirely recovered, small pieces of bone having been occasionally exfoliated and thrown off between the first of the third and last of the fourth months through the wound, which was kept open by being filled with lint, until the entire bony surface exposed was covered with healthy granulations, including the holes made by the drill. Upon this feature of the treatment, (that is, the leaving of wounds open after operations upon the bones,) I would wish particularly to be understood, as my views differ from surgical writers upon the subject. I never permit any wound made by a surgical operation involving the bony structure to heal by first intention; on the other hand, the wound is stuffed full of lint and kept so for a long time, whereby the whole must heal by granulations. The advantages of this are these:

1st. No burrowing of matter among the surrounding soft tissues takes place, or at least, when it does, it is so rare as to make an exception to a most general rule; whereas, with the common mode of treatment this is a most frequent occurrence and cause of failures in attempts to cure, and particularly in operations for pseudarthrosis. By the accumulation of pus in the region of the bone, a high grade of constitutional irritation is produced, which, in addition to the local trouble it causes, so far destroys the restorative powers of the constitution as to prevent a healthy action being established, and not unfrequently the patient is borne down and dies with hectic fever, which by this method would be prevented.

2d. It leaves an opening through which any portions of exfoliated bone may pass out of the limb. This exfoliation of bone is a most common occurrence, as I have tested by constant experience; and even when the above plan is pursued is often a source of much annoyance to the patient; and in the practice of the usual method is a cause of frequent failures in securing good results.

My plan is, to fill the wound with lint, and apply a roller, as tightly as the patient can conveniently bear, all over the limb, by

which the tissues become consolidated to such an extent as to render it almost impossible for pus to form anywhere, except upon the granulating surfaces. I have seen numerous cases in which patients were gradually sinking from hectic fever, produced by burrowing of purulent matter, relieved at once by an operation, either for pseudarthrosis or disease of bone, in which a bold, longitudinal incision was made, admitting of a free discharge of the pus, after which the lint and roller were used, as recommended. This has been so often tried in this city as to warrant success in all cases not decidedly unfavorable.

ARTICLE VIII.

Stomatitis Materna. By J. N. GIBSON, M.D., of *Bowling Green, Missouri.*

Mr. Editor: Several obstinate cases of this affection having recently come under my care, which, resisting the usual course of treatment pursued in such cases—such as chalybeates, alteratives, laxatives, and the local application of argenti nitras—I desire to call the attention of the profession to a course of treatment that I have pursued, with great success, and which, from my observation, I regard as nearly specific as quinia in intermittent fever. As this disease is occasionally very annoying to both physician and patient, resisting almost every therapeutic remedy, I desire physicians who may have such cases to give the treatment a fair trial after others have failed. This is my only object in sending you this communication. The following is the prescription I have used:

R—Zinci Sulph.	.	.	.	.	3 ij.
Acid Tannic,	.	.	.	.	3 j.
Aquæ Rosæ, f.	.	.	.	.	3 ij.
M—Solutio.					

Then add Spts. Terebinth, gtt. xxx.

This I use as a gargle three times per day. In addition to this, I have found much benefit from the chlorate of potash in doses of ten grains three times a day, with occasionally a laxative either of rhubarb, magnesia, or castor oil. This treatment, however simple it may appear, has certainly been efficacious in my hands.

I will cite one case which within the past few weeks came under my care, and which had been treated variously by others without effecting a cure. Mrs. C——, aged twenty-four years, and the mother of three children, (the youngest an infant,) who was a stout and plethoric lady, and who had hitherto enjoyed excellent health, called on me about the middle of May, and upon an investigation I found that she had been suffering extremely for several weeks. The following symptoms were presented: loss of taste, a disagreeable sensation in the stomach, similar, as she described to me, to scalding liquids. I noticed also two or three hard painful tumors, with elevated borders, on the side of the tongue, which were much ulcerated, producing painful sores; others appeared upon the tongue, and inside of the cheeks; indeed the ulceration extended over whole mouth; the surface was red, and so extremely tender and painful, that no drinks or food could be borne but those of the blandest character; the tongue was not coated, but was red and smooth, and the saliva quite copious. There was also considerable constitutional disturbance; she had more or less fever, loss of appetite, irritation of the stomach, and a profuse diarrhœa, in consequence of which the patient had fallen into a state of great debility and emaciation, which if not speedily relieved must terminate in death. I ordered the above treatment, and in one week the ulcerated surfaces had healed almost entirely. I then ordered wine and bark, a nutritious diet, and the patient rapidly convalesced. I have recommended this treatment to others of my professional acquaintances who had cases of a similar character, and they inform me that they have used it with the happiest results.

PART II.

REVIEWS AND BIBLIOGRAPHS.

ARTICLE I.

A Treatise on the Practice of Medicine. By EDWIN R. MAXSON, M.D., *formerly Lecturer on the Institutes and Practice of Medicine in the Geneva Medical College.* Philadelphia: Lindsay & Blakiston. 1861.

The present perilous times upon which we as a nation have fallen has put a stop to the book-making business, as well as to

almost every other department of industry. The minds of men are too much occupied with war and rumors of war, with civil strife and bloodshed, to write or even to read books to any extent. This is far too tame a pursuit for times of excitement such as these.

The work before us is one of the medical books which has issued from the press during the present year. It is a practical treatise on medicine, and consists in part of a course of lectures delivered by the author, in the Geneva Medical College.

The distinctive feature of the work is the glance of Anatomy and Physiology which the author has given in taking up the diseases peculiar to the several parts of the human body. This is well, and will, no doubt, be attractive to many, and serve as a valuable aid to those practitioners who have not the time nor inclination to review these elementary branches. A work on Practical Medicine should also have its foundation laid deep and broad in general pathology, which must ever constitute the basis of all rational treatment. In this department the author has not gone as extensively as we could desire. We shall, however, refrain from passing an opinion on the intrinsic merits of the work, as we have not sufficiently examined it to justify us in so doing. If our readers feel disposed to do this for themselves, they can readily procure the work at any of our book stores. It is comprehensive in scope, and executed in good style of art.

Transactions of the Tenth Annual Meeting of the Illinois State Medical Society, held in Paris, May 8th and 9th, 1860.

This is a pamphlet of 224 pages, consisting of minutes, addresses of officers, and reports on various medical and surgical subjects.

The address of Professor Davis of Chicago, on Mutual Relations and Consequent Mutual Duties of the Medical Profession and the Community, and the valedictory address of the President, Dr. David Prince of Jacksonville, are both sensible and instructive productions, and may be read with profit; while many of the reports and papers on various topics are so able and interesting that we shall hereafter endeavor to present our readers with extracts from them. Altogether this publication abundantly proves the Illinois State Medical Society to be a living, active body, worthy of a great State and a noble profession.

PART III.

RECORD OF MEDICAL SCIENCE.

Lectures on Chancre, delivered at the Baltimore Infirmary.
By WM. A. HAMMOND, M.D., *Professor of Anatomy and Physiology in the University of Maryland.*

LECTURE I.

Gentlemen : I propose making use of the large amount of material which the Infirmary affords for illustration, by delivering to you a series of practical lectures on venereal diseases. I shall not occupy your time with any extensive remarks on the history of these disorders, neither shall I stop to combat views which I hold to be erroneous, nor to eulogize others which may be more in consonance with my own ; but I shall endeavor to describe to you the affections in question as they actually exist, and to give you concisely and clearly the opinions which, after much reflection and no small amount of experience, I have been induced to form in regard to them. In so doing, it is very far from my intention to give you mere descriptions, but I shall try to make you practically as well as theoretically acquainted with the various phases under which venereal diseases are manifested, and this, as you have already had abundant opportunity for observing, can be readily accomplished so far as the number and variety of cases are concerned. In fact the Infirmary has always been one of the best schools for the thorough study of the important and interesting class of diseases under consideration which the country possesses.

The history of the venereal poison is certainly very interesting, but at the same time extremely unsatisfactory. In truth nothing definite in regard to its origin has been ascertained, but as is usual in such cases conjectures are innumerable. According to one party it is coeval with man ; another thinks it originated in the French army before Naples, during the latter part of the fifteenth century ; and a third attributes its appearance in Europe to the importation of the disease from America, by the followers of Columbus. This last view has, however, been positively disproved, and the second is doubtless as little entitled to confidence. Still other theories have been broached. One assumes that it is constantly originating from impure connections, a very unphilosophical assumption ; and M. Ricord, anxious apparently to cap the climax of absurdity, holds the view that it originated a long time

ago from some beast of a man having connexion with a mare affected with glanders. Prof. Mott, of New York, thinks that leprosy, struma, and syphilis, are primarily identical, the first being the parent of the others; but as far as I am aware he has adduced no evidence to support the idea.

My own opinion is, that these diseases are of great antiquity, for we find constant reference to them in the older writers, and even in the Scriptures you will discover allusions to affections which in our day we should call venereal. If you desire to study this point, you can do so from almost any of the systematic works on the subject.

One thing we do know, viz., they are more frequent than any other diseases; one-third of the population of civilized countries, men, women, and children, being subject to some one or more of the manifestations they produce, either primary disease, constitutional syphilitic affections, or others which have been transmitted to them by hereditary influence.

Is there more than one venereal virus? You have already discerned from the remarks which from time to time I have made to you, relative to cases under treatment, that I admit two species of venereal poison. 1st. That which gives rise to a simple, non-infecting, soft chancre, and 2d. That which causes an indurated one, liable to be followed by constitutional syphilis. Besides these, we have two kinds of virulent gonorrhœa; one caused by the deposit of the matter of a soft chancre on a secreting mucous surface, and another due to the contact of the pus of an indurated chancre with such a surface. These are all the varieties of infectious venereal diseases which I am able to recognize as primary disorders, and I think I shall be able to demonstrate to you the fact that these species do actually exist.

Are the two primary kinds of poison I have mentioned convertible one into the other? By no means; they are essentially distinct. The virus of a soft chancre cannot give rise to an indurated chancre, nor the virus of this latter to a soft chancre. Each inoculates with its own specific poison, causing a sore of the same character as the parent chancre. The two differ very essentially in their appearance and in the consecutive phenomena which may occur, and it is exceedingly important, as I shall point out to you, that you should be able to recognize these differences.

I am aware that in holding the view that gonorrhœa is primarily due to the deposit of chancrous virus upon a mucous surface, I am contending against many of the most eminent syphilographers who have written upon the subject. I am not, however, alone; and if I cared to do so, might bring forward many names familiar to you in support of this opinion. I have, however, adopted the theory in question from facts which have come under my own personal knowledge, and not because it was held by some one else. We will consider this whole matter more in detail when we

come to the subject of gonorrhœa, and I shall then bring forward the facts and arguments upon which my views are based.

I have said that there are two kinds of chancre, the soft and the indurated. Let us proceed at once to the consideration of these species of venereal ulcers; and first of the soft chancre. A soft chancre does not appear immediately after an individual has had connexion with another affected with this variety of venereal disease. A period varying from two to fourteen days always follows, during which no evidence of having become diseased is present. At some time within the period I have mentioned, generally on the fifth or sixth day, a small pustule is observed for instance near the frænum, or a small abraded surface secreting a discharge is for the first time perceived. If the surface was intact when the virus was deposited, the first form, the pustule, follows; if on the other hand an abrasion or a fissure existed, so that the part to which the virus was applied was deprived of its epidermis, the second form ensues. Recollect these two different modes of origination. The pustule is never found unless the virus has been applied to a surface in a state of integrity, nor the superficial ulcer unless the epidermis has in some manner been previously removed. Let us suppose we have the pustule to deal with. An itching of the part is generally felt a short time before any elevation of the epidermis is perceived. This is not, however, as some suppose, an invariable antecedent. A small pimple or pustule is next seen. This is of variable size, usually not larger than a small pea, and generally considerably smaller. This pustule in two or three days breaks, or the head is rubbed off, and thus an ulcer is produced. The latter may be of almost any form, but generally it is round or ovoidal; the edges are perpendicular; it is generally but not always deep, and the bottom of it presents a dirty grey appearance, is rough, and sometimes excoriated into little holes. The pus which flows from it is generally of healthy character, but is sometimes thin and discolored with blood. The ulcer does not remain of its primitive size; it spreads, enlarging equally in all directions, and in ordinary cases, after attaining the size of a dime it ceases to grow. In a few days it commences to cicatrize. A grey somewhat hardened border forms around it, and gradually diminishing in size, at the end of about four weeks it is entirely healed.

Such, gentlemen, are the appearances and characteristics of a simple or soft chancre, as ordinarily met with. The deviations I shall afterwards point out. There is one important feature, however, to which I have purposely not yet alluded, and that is the *softness of the base*. When the thumb and finger are applied to opposite sides of the chancre, no induration is felt; the base is perfectly soft, yielding readily to the slightest pressure, and scarcely distinguishable, so far as the touch goes, from the same part of the body in a normal condition.

Now this is a most important feature—one by which the simple or non-infecting chancre may be most readily distinguished from the other form, the indurated or infecting variety—and I cannot too strongly impress upon you the necessity of making yourselves thoroughly acquainted with the *feel* of these ulcers. The non-infecting sore, in its natural condition, never has an indurated base. It is essential, however, to recollect that an appearance of induration may sometimes be present. Thus, if much inflammatory action exists, there may be phlegmonous hardening, such as is felt at the base of a boil; but, as Ricord remarks, this, though readily distinguished from specific induration by the experienced touch, cannot in words be separated from it. Another form of hardening may be given to the base of a chancre, by the use of the various washes which are employed, but this also cannot in competent fingers be confounded with the true induration. I only mention these facts now in order that you may be reminded of their existence, but will dwell more particularly upon them when we come to the diagnosis of indurated chancre.

A soft chancre is generally solitary, but not unfrequently two or more are present. This is another diagnostic mark of some value, for an indurated chancre rarely has a fellow.

In situation it may be anywhere, except, perhaps, upon the head and face. It has not yet been detected upon these parts of the body, which is certainly a very singular circumstance. A chancre, therefore, on the head or face is always indurated.

A soft chancre is much more contagious than an indurated one. It is for this reason that they are more frequently met with. Four-fifths of all the chancres which occur are of the simple non-infecting kind.

The pus from a soft chancre, when submitted to microscopical examination, is seen to be constituted of regularly formed pus-corpuscles, floating in a homogenous fluid. When these are acted upon by acetic acid, a nucleus is brought into view, just as in ordinary pus-corpuscles. Occasionally a few red blood-corpuscles may be present. The secretion from an indurated chancre is of a different microscopical appearance.

Inoculation affords us a ready means of determining the character of the chancre. A small portion of the pus of a soft chancre inserted into the thigh (for instance) of the diseased individual causes the formation of another chancre of the same kind: provided always (and it is important to recollect this fact) the original chancre is not far advanced in the process of healing. If, having reached its height, it has diminished considerably in size, the matter from it will not cause another chancre. At this stage, it has lost its specific character, and has become a simple non-contagious ulcer, incapable, physiologically or artificially, of any longer propagating its species. You will remember that a short time since I performed inoculation with the pus of a soft chancre

in process of healing, and with a negative result. I have frequently known men have connexion with females under my treatment who were affected with healing soft chancres without contracting any disease, and I have often known men affected with chancres of similar character and condition, have sexual intercourse with women with perfect impunity to the latter.

But there is another feature, a very important one—one for the mention of which you are already prepared, and that is, that the soft chancre is essentially a local disease, never infecting the system, and consequently never producing those horrible constitutional ravages which are frequently met with as sequences of the indurated chancre. You perceive, now, how necessary it is for you to be able to make a correct diagnosis, not only with a view to proper treatment, but that you may at once relieve the mind of your patient of the terrible apprehensions he generally experiences.

In a subsequent lecture on the duality of the venereal poison, I shall enter at length into this subject.

But if the soft chancre does not infect the system, it produces other effects which sometimes are scarcely, if at all, less calamitous. It is that form which is pre-eminently liable to inflammation, ulceration, and phagedena; the latter, when unchecked, the most terrible complication which attends venereal diseases. To these modifications of the course of the simple chancre, I now ask your attention.

A soft chancre is liable to be attacked with an excessive amount of inflammation. In such cases, the appearance of the ulcer is materially modified, and the surrounding tissues become swelled, painful and hot. The chancre itself, instead of retaining its rather indolent characteristics, assumes a deep red color, or it may be changed to a purple hue from excessive congestion. The secretion from its surface becomes thin and acrid, excoriating the parts over which it flows, and giving rise during the first period of the inflammatory action to fresh chancres. If the process is not arrested, gangrene and consequent sloughing of the affected parts may ensue.

Now, one of the chief causes of this complication is the application of irritating substances, such as corrosive acids, nitrate of silver, sulphate of copper, etc., to a chancre which ordinarily would do very well without them, or in which more efficient cauterization is required; but the most frequent is deficient stamina in the individual affected. This may be due to debility, dram drinking, or to the inordinate use of mercury. Again, if the chancre is situated upon the frænum or corona, by impeding the retraction of the prepuce the discharge may accumulate around the glans and give origin to the extra-morbid process; or it may be due to mechanical irritation, friction against the clothing, or during coition. I have frequently found both these latter causes

the active agents. In cavalry soldiers who, during long marches, are obliged to spend several hours each day in the saddle, chancres which are doing well will become inflamed and cause a good deal of subsequent trouble. A man who entered the Infirmary a few weeks since, and who is still in the house, you will recollect, caused a high degree of inflammation in a soft chancre on his prepuce by tying a string around his penis.

The specific character of the chancre is lost if the inflammatory action continues longer than four or five days. This fact has been ascertained by many observers, and I have had abundant opportunity of determining the point, both by inoculation, and by observing that individuals so affected did not communicate chancres to others with whom they had sexual intercourse. A Mexican woman who was under my care, with a large inflamed chancre at the fourchette, had connexion in one night with seven dragoons, all of whom escaped disease. A soft chancre may become the seat of excessive ulceration without there being any increased inflammatory action. Under such a condition, the chancre generally enlarges, and may attain an enormous size, unless checked. When it heals at one border and enlarges at the other, the ulceration is said to be serpiginous. You have recently had several opportunities of witnessing this complication. It is one which is difficult to treat successfully unless constant watchfulness is exercised, and prompt, active treatment adopted.

The chancre attacked with excessive ulcerative action is still capable of being inoculated. I have several times satisfied myself of the truth of this assertion. Ricord mentions a case on the authority of M. Puché, in which a serpiginous chancre yielded considerable pus after lasting three years.

Lastly, we have phagedena as a complication of soft chancre. This is almost always due to some constitutional cause, to intemperate habits, excessive sexual indulgence, bad food and air, but above all to the influence of mercury. When I was in the army and stationed in New Mexico, I witnessed many terrible cases of phagedenic chancres. Most of them were due to the effects of mercury. Medical men were scarce, and persons who contracted chancres were in the habit of treating themselves, and always with mercury, which they took till salivation was produced, and frequently for a longer period. Many cases were due to excessive sexual indulgence, the cause being doubtless rendered more effective from the fact that the Mexican women were excessively filthy, and had intercourse with any one who chose to ask them. With soldiers who were kept under greater restraint and who were not treated indiscriminately with mercury, phagedena was not met with in anything like the same proportion of cases as in citizens.

In phagedena the surface of the chancre becomes dark, sometimes almost black. A purple areola surrounds it, the discharge

changes to a dark-colored ichor, which excoriates the parts it touches; the ulcer enlarges with great rapidity, and the tissues in the neighborhood break down and disappear more rapidly than under the influence of simple ulceration. Arteries are exposed, and dangerous hæmorrhage may thus be caused. In one case which came under my observation the femoral artery was perfectly denuded as far as the middle of the thigh, and in several places a probe could be passed down to the femur. The genitals are often entirely destroyed, and I knew of one case in which the anterior wall of the abdomen was perforated, giving rise to peritonitis. There is no limit to the action, except the power of the patient to survive under such extensive destruction. As you can readily perceive, the constitutional disturbance is often excessive, and is always well marked. There are debility, fever, and eventually hectic, and at last the patient, completely worn out, succumbs.

The prospect of recovery depends altogether upon early and prompt treatment. If seen in its early stage and properly dealt with, especially if the mercurial cachexia is not present, phagedæna can generally be arrested; but under other circumstances it terminates sometimes speedily, sometimes slowly, but always surely in death.

The secretion from a chancre attacked with phagedæna is frequently inoculable, though I have often failed in obtaining positive results. The resulting chancre is liable, if produced upon the diseased individual, to assume a phagedenic character, but not if a healthy person is used for the experiment.

Another occasional accompaniment of the soft chancre is bubo. This, as ordinarily understood, is an inflammation and enlargement of a lymphatic gland of the groin. In the bubo you have, as M. Ricord has very clearly shown and as my experience also establishes, a valuable means of discriminating between the two species of chancre. The bubo attendant upon the soft chancre is not constant, and may depend upon either of two very different causes. It may be either a simple inflammation of a lymphatic gland, due to the irritation produced by the ulcer—just as a corn on the foot causes a swelling in the groin, or one of the hand an enlargement of a gland of the axilla—or it may be caused by the direct absorption of the virulent pus from the chancre. Thus there are two essentially distinct species of bubo liable to be produced by the variety of venereal sore under consideration.

The situation of both is the same, being always in the superficial glands of the groin, but the character and progress of the two differ materially. That which is due to simple inflammation may terminate in resolution or it may suppurate. In the latter case, it heals kindly and does not furnish pus which is inoculable. The virulent pus has not caused it, it is simply symptomatic, and it may occur at any period during the existence of the chancre.

The other form of bubo which may attend a soft chancre is, as

I have stated, due to the absorption through the lymphatics of the pus of the chancre. It is therefore specific, and the pus from it, when inoculated, gives rise to a chancre of the simple or non-infecting kind. It differs also from the simple adenitis in the fact that it always suppurates. If allowed to open spontaneously, or if it be incised, the edges of the wound become chancrous, and the ulcer liable to all accidents, especially phagedena, to which the soft chancre is subject.

It may occur at almost any period. Ricord mentions a case, which he quotes from M. Puché, in which three years after the commencement of a soft chancre, a bubo furnishing inoculable pus was formed. The longest period I have witnessed is seven months. In this case a bubo formed, with the pus of which I caused several simple chancres on different persons, seven months after the commencement of the original chancre. The edges of the wound made in opening it became chancrous, and as it exhibited a strong tendency to ulceration, the ulcer was cauterized with nitric acid. It healed slowly, and five years afterwards the man was in good health.

I shall return to the subject of bubo in a subsequent lecture, and will then consider the whole matter more in detail.

To recapitulate: we find that the soft chancre is a local disease, that it never infects the general system, that it may be inoculated if the process of reparation has not advanced far, and this upon the patient affected—that it is the kind of chancre pre-eminently liable to complications, such as inflammation, ulceration, and phagedena, and that it is occasionally accompanied or followed by two kinds of bubo, one a simple symptomatic adenitis non-virulent, the other caused by the absorption of chancrous pus, always suppurating, and the pus found being inoculable, and therefore truly of a specific character.

In the next lecture we will take up the treatment of this form of venereal disease, and I now proceed to bring under your immediate observation cases illustrating the points touched upon this morning.

LECTURE II.

Gentlemen: In the last lecture, the subject of soft or simple, non-indurated, non-infecting chancre, was considered. I pointed out to you how this form of venereal disease could in general be recognized, and how important it was that you should be able to discriminate between it and the indurated and infecting chancre. The more important complications which attend the progress of the soft chancre were also alluded to, as were likewise the two species of bubo which sometimes accompany or follow this variety of venereal ulcer.

In the present lecture, I design indicating to you the plan of

treatment which I have found best suited to this species of disease ; and as there are a number of cases in the house in which it is being carried out, I think I shall be able to inculcate the principles which should guide you, by that best of all methods—observation.

You will be much more frequently called upon to treat simple than indurated chancres. Out of one hundred chancres, seventy-five will be of the former character. Fournier makes the proportion somewhat smaller. Thus, out of three hundred and forty-one cases, one hundred and twenty-six were indurated, and two hundred and fifteen simple. M. Riche has found the ratio to be the same that I have stated, one in four being indurated. My notes show that of two hundred and eighteen cases of chancre, in which I have noted the character, fifty-four were indurated, and one hundred and sixty-four soft, so that the proportion is as near as possible to that above given.

Now there are two circumstances to which I have called your attention, which pre-eminently influence us in the treatment of the simple chancre. 1st. You must not forget that it is altogether a local disease ; 2d. That it is liable to extensive ulceration and phagedena. The former fact does away with any necessity for the exhibition of mercury, and the latter renders such a course not only improper but highly dangerous. At the same time it is desirable to destroy as soon as possible the specific character of the chancre, and to convert it into a simple non-virulent ulcer.

The reasons for this are very obvious. You will recollect that I stated to you that the soft chancre was exceedingly contagious. A person may have half-a-dozen or more present at the same time, either as original sores, or, what is more usually the case, caused by the pus from a single chancre. These are more generally met with on the genital organs, or in their neighborhood, from the fact that the virulent pus has more intimate relations with these parts. It is not uncommon to find them about the anus of both sexes, on the scrotum, the labia, thighs, &c. But the pus may be carried to other regions by the fingers ; and consequently, no part of the body, unless it is the head, is exempt from the contagion of the simple chancre. By destroying at an early stage the specificity of the chancre, the contagious character is also annihilated, and new chancres prevented.

Another reason for this treatment is, that the liability to the formation of a virulent bubo is greatly lessened, and if it is sufficiently prompt, altogether destroyed.

Now the manner in which this may be most effectually done is by cauterization. There is no end to the caustics which have been recommended for the purpose. Vidal, who, however, did not lay sufficient stress upon this principle of treatment, employed the nitrate of silver. Ricord formerly used the Vienna paste, a mixture of quick-lime, five parts, and caustic potash, six parts,

made into a paste with alcohol ; and the monohydrated nitric acid, the acid nitrate of mercury, chloride of zinc, the actual cautery, and numerous others have been lauded by their proposers. I have employed all of these at times, but have found nothing so manageable, and at the same time so effective, as the sulphuric acid and charcoal paste recently recommended by Ricord. This is prepared by taking strong sulphuric acid, and making it into a paste with sufficient finely powdered charcoal. The chancre is covered with this, and the mixture is allowed to remain undisturbed for three or four days. At the end of this period the paste falls off, bringing with it the slough which it has produced, and having underneath a healthy sore, the specific character of the chancre having been entirely destroyed.

As soon, therefore, as you have definitely ascertained that a soft chancre is present, provided always that you see it before it has commenced to heal, apply the paste, and cover the part with a piece of lint spread with simple cerate. Let it remain, changing the lint as occasion requires, till the slough is spontaneously detached. After this event has taken place, dress the healthy sore which now exists with a solution of tannin in water, one, two, or three grains to the ounce, and it will, in the great majority of cases, speedily heal.

The inconveniences of this plan are, first, that it causes very considerable pain ; and second, that it is sometimes difficult to apply the paste to the chancre, owing to the situation in which it occurs.

The first is not a very serious objection, and when we take into consideration the purpose of our treatment, one not entitled to come in conflict with it. The annoyance from this source is certainly not greater than that caused by the other powerful escharotics mentioned ; and so far as my observation extends, much less than that produced by the nitric acid. It is well, however, to mitigate the pain, when severe, by opium, of which a full dose may be given.

The other objection mentioned is of more consequence. It is undoubtedly difficult to manage the paste, when it is necessary to the vagina, or to any other part of the body where opposed surfaces come in contact, for the reason that ulceration may be thus caused in perfectly healthy tissues. To some portions of the body, as the rectum and urethra, it does not at all admit of being applied ; but then the same is true of any other escharotic material of similar power.

I think, however, that with proper care you will generally be able to use this paste with advantage, when it can be employed at all. I have frequently applied it to chancres seated in the little pouch between the vagina and the neck of the womb. To do this, it is of course necessary to use the speculum. In addition, I employ a glass rod with a cup-shaped depression at one end,

the end being enlarged with which to bring the paste in contact with the chancreous surface. I then place a dossil of lint spread with cerate, and several more wet with water over this last. The patient is then kept in bed till the acid has been absorbed into the diseased part, which is accomplished in five or six hours. In this way, I rarely have any trouble.

In using this or any other escharotic for the destruction of chancre, you must not be timid. As Ricord has well said, it must be applied to a surface considerably greater in circumference than the chancre, and you must also put on enough to soak well into the base, and through the thickness of the ulcer to the healthy tissue below. If a spot no larger than the head of a pin be left untouched, your trouble and your patient's pain will go for naught, as the surface left after the detachment of the eschar will become inoculated afresh. Deal with it therefore in the spirit of liberality, if you wish to be successful in its management.

When the chancre is situated within the rectum, I prefer to use the nitric acid to destroy its specificity. This agent may be readily applied with the glass brush, having previously dilated the bowel, and brought the parts well into view with the speculum. A dossil of lint thoroughly soaked in olive oil is next inserted, and left in as long as is convenient. It may be necessary to repeat the application.

As to urethral chancres, you will never find them seated beyond the fossa navicularis. In this position they can be brought into sight with the urethral speculum, and the nitric acid applied in the manner above described.

The treatment which I have recommended is not applicable to the soft chancre in process of healing. As I have already stated to you, after reparation has advanced, the specific character of the chancre is very much lessened if not entirely lost, and the sore is nothing more than a simple ulcer. At this stage it is to be treated with astringents or slightly stimulating applications. Among the best of these is the wash of tannin previously mentioned. Many cases which enter the Infirmary, are already in process of separation, and therefore are at once subjected to this treatment. Occasionally when the granulations are too exuberant, I destroy them with the nitrate of silver freely applied; and when they are deficient, I stimulate the surface by the gentle application of the same substance.

Besides the tannin lotion, sulphate of zinc, acetate of lead, and nitrate of silver solutions may be used. These should be weak, and should be frequently applied, or, what is still better, the chancre should be kept constantly moist with them. Ointments are not, in my opinion, as efficacious as the lotions.

(Continued on page 467.)

Gouty Concretions in the Ear.

Concretions occupying the lobe of the ear, within the helix in the shape of small round prominences, under the skin, have often been observed in gouty persons, *i. e.*, in subjects presenting manifestations of the lithic diathesis. Left to themselves, these concretions are sometimes spontaneously eliminated without the interposition of any inflammatory action, and leave a slight scar behind.

This is not a new disease. English practitioners, who have more frequent opportunities than ourselves of studying gout, have already observed them. Garrod asserts, that they are to be met with in half the cases, and even that their appearance sometimes precedes the other manifestations of the morbid diathesis. This would therefore be a very valuable element in the diagnosis of incipient gouty affections. Mr. Charcot has observed but six individuals affected with gout, in consequence of the rarity of this disease in hospitals; of these six patients, three presented the concretions we have just noticed. Extracted by means of a small incision, they displayed the aspect of a plaster-like matter, constituted by hard crystals. If they are analyzed, their chemical composition is found to be that of articular tophus; the addition of acetic acid causes the deposition of uric acid, in very apparent crystals.—*Med. & Va. Med. Jour.*

Convallaria in Ecchymosis.

A writer in the Medical Times and Gazette says: "A correspondent asks the communication of an effective remedy for ecchymosis of the eye in a lady patient who had met with an accident. One which I have used for a great many years, never disappointing me, usually getting rid of the blackness in a few hours, is the root of the 'Convallaria,' 'Solomon's Seal.'" It should be washed, the dark colored cuticle carefully cut off, then scraped like horse-radish, applied direct to the eye in the way of a poultice, cold. A tingling sensation is the consequence; when this sensation ceases, another fresh application should be made, and repeated until the whole ecchymosis is absorbed. I have often found it sufficient to apply the scraped root at bedtime to the closed eye, when the blackness has disappeared by the morning. The convallaria is readily found, and is equally effectual at this season of the year.

[*Druggists' Circular.—Ohio Med. & Surg. Jour.*

Influence of the Mother's Mind upon the Fœtus in Utero.

In the Nashville Journal of Medicine and Surgery, for May, Dr. M. M. Davis of Richmond, Miss., has an article upon this subject. Dr. Davis is a firm believer in the development of abnormalities and inhumanities in utero through the influence of the mother's mind. He narrates a case known to him, in which a woman had been, during her pregnancy, frequently frightened by a horse. Labor came on in due time, "and the object of her labor was expelled lifeless." Dr. Davis thus describes it: "To the astonishment of the husband and all the attendants, it proved to be, instead of a child, something like the shape of a horse. Its head, ears, nose, neck, body, feet, and legs, were all as much like a horse as if it had been sired and foaled by that species of animals."

The second case came under his immediate observation. The lady, during her pregnancy, had taken a great fancy to a monkey, and miscarried, at what period of her pregnancy we are not informed. Dr. Davis thus describes the expelled contents of the uterus: "From its neck it had the appearance of a well-formed four months' male fœtus, while its head, mouth, nose, and ears, resembled those of a monkey. Its left eye had no lids, but all the ball and membranes seemed to be as blue as indigo, all of which was covered by a thin, transparent membrane. The right eye was not discernible."—*Ohio Med. Journal.*

Diphtheria. By E. L. PLYMTON, M.D., of Madison, Lake County, Ohio.

Prof. Dawson—Dear Sir: Overwhelmed with the cares of home and the sick abroad, and wearied with the excitement "of successful or unsuccessful war," I sit down to fulfil, in part, the intimation I once made, viz., that I would give you the result of my experience with diphtheria.

That intimation was made at a time when this epidemic made its first appearance in this vicinity, and from its prevalence and fatality in localities not remote from my field of labor, I then apprehended that I should have more ample opportunities for observation than I have since realized. Since the advance of this disease within the limits of my practice, I have not had the opportunity of treating more than fifty well-marked cases, (I mean cases commencing with chills or chilliness, followed with headache,

and a fever of more or less violence, and the diphtherial membrane in the throat,) which I could call my own, although I have seen several others, under the care of neighboring physicians. Nor do I assume that it has prevailed in so malignant a form here, judging from the report of other physicians, as it has in many other places.

My field of observation has been in a rural village, of some six or seven hundred inhabitants, and its surroundings, settled with the New England people, whose condition and habits furnish few, if any, examples of the enervating influences of extreme poverty on the one hand, or of aristocratic indulgence on the other. The first appearance of diphtheria in our community was attended with the most exciting apprehensions. It came from neighboring localities with a fearful and sad history. It came as the enemy of juvenile life, carrying desolation and anguish into many a family circle. One family had lost two of its members, another three, another five, and another nine! Notwithstanding the fearful mortality attending its march in other places, from five to fifteen miles distant, I am unable to learn that more than five deaths have occurred within the limits of this township, which contains among its population, as I see by the township records, eleven hundred children of school age, to which number, if we add one-third, (the assumed number below the age of five years,) would make near fifteen hundred in all. My first opportunity of witnessing a case of diphtheria occurred last June, in the case of two patients, under the care of a physician of good standing, but a stranger to the disease. One was a girl of five years of age, and was then in what is termed the "croupal stage." The obstruction to respiration, however, seemed almost wholly circumscribed to the glottis, producing paroxysms of extreme dyspnoea, or, I might say, mechanical strangulation. Her throat had been repeatedly cauterized with nitrate of silver without the least apparent benefit, and she died a few hours after my visit. At the same time, and in the next house, my attention was called to a lad fourteen years old, then sick five or six days, with the tonsils much swollen, and with a muco-purulent discharge from the nose, fetor of the breath, etc. This boy was reported convalescent soon after my visit, and continued able to walk about the house and in the streets for some ten days, when his parents became suddenly alarmed at his apparent prostration, and sent for me, at the same time summoning his attending physician. On our arrival, we found his pulse extremely weak and rapidly growing imperceptible, occasionally making an effort to vomit, calling for more air, wishing to be fanned, complaining of nothing but a "want of breath," appearing to be in a state of syncope.

He died in four hours after our arrival, without any improve-

ment from active stimulants, cordials, etc. In short, it was death beginning at the heart. To my mind, it was a case in which the blood had become so much contaminated by the toxic elements engendered by the disease, as to render it incapable of longer sustaining the action of the heart.

The career and termination of these two cases most emphatically impressed on my mind the idea, 1st. That diphtheria is as much a blood disease as small-pox; 2d. That it should be treated with such hematic remedies as have a tendency to correct this morbid condition; 3d. That the treatment, to be effective, must be commenced either before or early in the active stage of the disease, and that it is useless to waste much time or trouble in treating the local affection of the throat. Acting upon these conclusions, I have, in every case, placed my principal reliance upon some combination of chlorine, and mainly upon the chlorate of potash, commencing usually with a mild mercurial cathartic, oftener using the hyd. c. creta than any other. To a child of five years of age, I give enough of the saturated solution of chlorate to contain three or four grains, and repeat the dose every three hours during the career of the disease; and to patients older or younger, in relative proportions. When the child is capable of gargling, I have him use one mouthful as a gargle, for the purpose of washing out the loose excretions of the throat, and then immediately swallow the prescribed dose. I have repeatedly penciled the throat with the nitrate of silver and tincture of iodine without any very satisfactory results. I know of no conditions in which the cauterizing promises to do good, except in those cases where it may be necessary on account of the tumefaction of the surroundings of the throat to remove with a caustic swab the tenaciously adhering excretions for the purpose of gaining a temporary respite from threatened suffocation till the disease has time to finish its destined career.

I can see no more philosophy in removing the membranous exudation with the expectation of mitigating or cutting short the disease, than I can in removing the pustules of variola with the expectation of safely terminating that disease. The one is as much an element of systemic disease as the other. If the diphtherial exudation be in the air passages below the epiglottis, the caustic swab will stand a poor chance of removing it in season to save the patient; if the exudation be above, it will not be much in the way of his recovery. I had used the chlorate of potash in scarlatina (as a gargle mainly) several years before I heard of diphtheria, and its good effects in that disease, coupled with an incident that occurred many years ago, contributed greatly to inspire me with confidence in its utility whenever the blood is presumed to be impaired or contaminated by the action of some zymotic poison.

Some twenty-eight years ago, when scarlatina maligna was prevailing in our midst with the most disastrous results, I had two patients—the one five years old, the other perhaps two—attacked in the decline of the acute symptoms with purpura—blood issuing from the mouth, nose, eyes, ears, bowels, bladder, and in one case, also, from a sloughing abscess behind the ear, attended with the most alarming prostration. These cases I treated with calomel in moderate cathartic doses, repeated every four hours, and guarded with opium, till they had taken six or eight doses, when the blood acquired the power of coagulation, and the hemorrhage subsided, and all my patients got well. But I was surprised to find in the chamber vessel which they had used pure metallic mercury. Then, thought I, chlorine is the element which the blood craves, in order to correct that abnormal condition which gives rise to purpura.

I have since treated several cases on the same principle, with the same happy results, modifying the treatment somewhat with other compounds containing chlorine—such as the chloride of soda, muriatic acid, etc.

Now, I do not presume that purpura and diphtheria are of the same pathological character, although I know that a hemorrhagic condition of the system does occasionally attend the latter; but I do think they have a remote affinity, sufficient to suggest the propriety of prescribing medicines for this disease with reference to their power of eliminating or counteracting hematic poisons. And at the head of this class of remedies for diphtheria, I place the chlorate of potash.

Whether it supplies some wanting element to the blood, or sets in operation a train of action that eliminates the diphtherial poison, or has the property of neutralizing the poison, or whether it endows the nervous centres with power to endure the influence of the poison during the course of the disease, I do not pretend to know. But I have thought the continued administration did increase the solid contents of the urine—but of this I am not positive. I have written thus much respecting its use, not because it is not generally given by regular practitioners, but because I am constrained to believe, from what I know of some of them, and the results of their practice, that they do not make it the most important item of their treatment. Some use it incidentally as an auxiliary to other means; while others do not use it at all. I not only have faith in it as a curative remedy, but as a prophylactic. It was observed by myself, and I believe by others, during the winter and spring months, that, whenever we were called into a family, and inspected the throats of the uncomplaining children, we would find three out of every five, on an average, with the mucous membrane of their throats very red, often a dark-red, and occasionally showing elevated points with gray summits,

while the children were yet at play as usual. These cases evidently awaited some exciting cause to develop the active invasion of the disease. A sudden cold has proved the most common, but it might be any other cause that lowered the excitability sufficiently to provoke reaction—such as an improper meal, over-fatigue, or a malarious chill. Hence, I have always, whenever called in to a family where this condition of the throat prevailed, set the children to taking the chlorate till the redness disappeared. And by this means I flatter myself that I have prevented many attacks, while I modified into a mild form many cases where the disease was ultimately developed.

Now, I do not wish to be understood as giving to the chlorate of potash the reputation of a specific to stand the brunt of an attack in every case alone. Because this we do not do with any medicine. We know that quinine often stands in need of the aid of other medicines to enable it to cure and remove the consequences of an intermittent fever. And if there be any medicine which merits the assistance of allies, I am sure it is the chlorate of potash.

I have discussed this aspect of the subject with some degree of earnestness, because I believe that had the disease been properly medicated in the early stage of development with this agent, there would have been in this part of the State much less fatality among those attacked. Doubtless in many localities where malarious influences prevail, quinine cannot be safely omitted (and as a hæmætic remedy, I think it admissible in any case); and in others of an anæmic stamp, the muriated tincture of iron should be given; but in all cases requiring any medication at all, the chlorate of potash should not be omitted. I am persuaded that calling the disease by the misnomer of "putrid sore throat" has been a frightful source of mal-practice, especially among those whose principal anxiety is to know the name of a disease rather than its nature. Calling it "putrid sore throat," the old foggy Doctor sought to cure it with prostrating cathartics, alteratives, and caustic pencilings; and the Botanic went to work with lobelia, pepper, and perhaps mandrake; while the Homœopathist, puzzled with his "*similia similibus curantur*," exultingly consoled his patrons that "he was giving nothing to harm them." Each pursuing his distinctive mode of treatment, the old foggy lost three out of five children in one family, the homœopathist three out of four, and the botanic nine out of ten. Certainly neither of them have gained any laurels by the result of their practice in this vicinity. When the botanic had lost six of his patients, some neighbors interposed and tried to induce the family to have a change of doctors; but when the botanic assured the afflicted parents that the "pothecary doctor," which had been recommended, would give the chlorate of potash, which was a "most virulent

poison," he secured the privilege of escorting the remaining three out of the world.

I notice that among some writers there is a disposition to identify diphtheria with scarlatina maligna, holding it to be a variety of that disease. Now, to me, this seems very strange. Scarlatina has been an old acquaintance of mine these thirty years. Seldom during that period have five years elapsed without its return in an epidemic form; and yet among the many hundred cases I have treated, and among the many deaths I have witnessed, I do not remember of seeing but one case ending in croup, whereas in diphtheria, neighboring physicians tell me that nine out of ten of their fatal cases have terminated with a diphtherial attack of the air passages, most generally confined to the trachea. Certainly, I have witnessed no other fatal termination, except the case referred to in the beginning of this communication. The frequency of this local manifestation doubtless depends very much upon that atmospherical condition which produces coughs and colds, keeping up in children an irritable or congested state of the mucous tissues of the larynx, trachea, etc. Again, in diphtheria I have never witnessed any destruction of the tissues beneath the exuded membrane, while in malignant scarlatina some of my patients bore most unmistakable evidence of disorganization in the mutilated appearance of the soft palate, the uvula, and tonsils, even after they were restored to health.

Is it contagious? In one sense it is: it can be communicated by the contact of diphtherial matter to an abraded surface, or to a mucous surface exposed to the contact of air. Of this I had a convincing proof in my own person. While cleansing a swab which I had used in the throat of a very bad case, I drew it through betwixt my thumb and finger, upon which was a very slight abrasion. In forty-eight hours this abrasion was surrounded with an ash-colored blister of the size of a twenty-five cent. piece, attended with some pain in my limbs, and an unusual degree of chilliness. I attended a little girl of six years of age, who had the disease in a moderate way, and after making four or five visits I dismissed her, leaving her convalescent, as I supposed. The next day I was recalled, and found the nymphæ enormously swollen, and the visible part of the vagina coated with the diphtherial exudation. This recurrence of disease proved the most formidable part of the case. In this case I doubt not the infection was conveyed from the mouth to the genitals by her hands. I do not think it is capable of being communicated through the medium of the air. I have had no cases which could be traced to an aerial exposure.

I still have some thoughts touching controverted points in relation to this disease, which I intend to present, but I can proceed no further.

After a subsidence of the disease for many weeks, I now have the charge of a family of seven children, all sick with diphtheria. This family resides in a dilapidated house, under which is a large cellar, containing, until now, water one foot in depth, in which were floating rotten potatoes, cabbage, and other vegetables, emitting a horrible stench. I think these children are now in a way to get well.—*Ohio Med. Jour.*

An Extraordinary Case of Entire Absence of Vagina.

Messrs. Editors : In March, 1860, I was called to see Mary J. McD., who was suffering intensely from retained menses; her age about 17. Having previously prescribed for the patient, without affording relief, I requested an examination, which was granted; and, very much to my surprise, and I have been in the active practice of medicine for forty years, I found no trace of a vagina; there was not even a pit, or depression, corresponding to the vaginal opening, discoverable upon the most careful examination, and the space between the anus and the orifice of the urethra was unusually small—scarcely more than the usual perineal space. I introduced my finger within the rectum in search of the uterus, and felt a body, high up, as far as I could reach, firmer than the surrounding structures, and of such a size and shape that I regarded it as, without doubt, the uterus.

I informed the girl, as also the people with whom she lived, of her condition, who readily assented that means should be attempted for her relief, if possible. Upon consultation with several medical gentlemen of the vicinity, it was agreed to attempt an operation for restoring the vaginal canal. After various delays, and surrounded by many embarrassments, unnecessary to detail, we commenced the operation by placing the patient under anæsthetic influence. Dr. Gething took charge of the ether, and Dr. Hopton assisted me in the operation. It was found almost impossible to secure the desired effect of the ether, and, consequently, a mixture of equal parts of chloroform and ether was used, with prompt and satisfactory results. We introduced a gum elastic catheter into the urethra, as a beacon anteriorly, and the finger in the rectum posteriorly, and, with the scalpel, proceeded to dissect up the integuments, passing carefully in the pelvic axis upward and backward, using all precaution to avoid the urethra on the one hand, and the rectum on the other. The narrow space, and the free hæmorrhage, rendered our proceeding a very tedious matter; but, having penetrated about the depth of a finger length, the outline of the os uteri was plainly felt by Drs. Gething, Hopton, and myself. We supposed it possible

there might be some muscular fibres still remaining, which would require division, but, for fear of wounding the ill-defined os uteri, we decided to await some subsequent occasion, and complete the operation, if required.

The wound was cleansed and dressed, a large tent placed in the new-made passage, and the patient put to bed. That night she had a very large discharge of black, thin menstrual fluid, which led us to infer that the communication with the uterus was perfectly established. The patient remained in the village about ten days, during which time everything appeared to do well. She was then removed by her friends a few miles distant, where she was still under our occasional observation, and where we instructed her to dress the wound for herself. I still expected to make a final examination of the condition of the parts, so soon as the first wound should be sufficiently healed, and, if necessary, complete the operation; but, before time and opportunity permitted such an examination, she was taken by her father over into Virginia, and, of course, I lost sight of the case.

It appears, however, from a communication which recently appeared in your journal, that a gentleman of Sistersville, Va., has completed, or attempted the completion, of our operation. According to his account, he made a *crucial incision in the hymen*, and, by introducing his speculum, was enabled to discover the cicatrix remaining from our operation. Being familiar with the original condition of this patient, and our own attempt at relief, we were certainly very much astonished at the details given by your correspondent; and, especially, that he should find a hymen situated at the posterior, instead of the anterior, portion of the vagina. This, however, probably accounts for the difficulty he experienced in making his crucial incision.

I am, very respectfully,

LEWIS GRATIONY.

[*Cleveland Med. Gazette.*]

Cystorrhœa vs. Matrimony.

A correspondent of the Nashville Journal of Medicine and Surgery, in the May number of that journal says, that for two years he was troubled with cystitis. Several "eminent physicians" were consulted, and a variety of treatment brought to bear upon the case, among which were injections into the bladder of a solution of nitrate of silver, twenty grains to the ounce.

He was advised by his physicians not to marry; but, after being treated ineffectually for two years, he disregarded the advice in this particular. He says: "In less than three weeks after I married, the disease was entirely well, and I have had but very

few slight symptoms of the affection since. (Now, about a year.) It seemed to reduce all excitement and produce an equilibrium in the system that acted like a charm."

We think the *non-professional* treatment would be less disagreeable than injections into the bladder of a solution of nitrate of silver, twenty grains to the ounce! But should a married man unfortunately be afflicted with cystitis, what is the remedy? Must he marry again?—*Ohio Med. Jour.*

Remedies for Cutaneous Diseases.

In an essay "On the use of Potash in some Cutaneous Diseases," read before the Boston Society for Medical Observation, Oct. 3, 1859, (Boston Med. & Surg. Jour., Oct. 20, 1859,) Dr. James C. White has called attention to the use of caustic potassa, as practiced in Germany, and more especially by Prof. Hebra, of Vienna, particularly in the form of *schmierseife*: *sapo domesticus*, or domestic soap, (not exactly *sapo viridis*, as stated by Dr. White,) for this and the black variety are included in the terms "*schmierseife*, *weicheseife*, *katiseife*," meaning soft or potash soap; but the black soap is prepared by boiling fish or other animal oils with an excess of lye composed of caustic potash and the crude carbonate, while green soap is made from rape, hemp, flax-seed or other vegetable oils. The difference is not very great, in fact; it appears, however, that the black variety is principally employed for the purpose referred to. Rubbed upon the healthy skin, this soap produces a slight reddening only, but if the friction be continued a long time, excoriations and various eruptive appearances are apt to follow.

The affections of the skin in which this and similar preparations prove most useful, are:

1. *Moluscum, contagiosum, Seborrhœa, Strophalus albidus of Willan*.—The openings of the sebaceous glands are stopped and distended by a plug of sebum, which, acting as a foreign body, produces inflammation of the gland and surrounding skin, with degeneration of the follicles. These comedones are most often met with on the nose, principally in persons of gross habit, and not unfrequently many such diseased follicles unite to form a single tumor, from which exudes a milky fluid. This is best treated by snipping off the head, pressing out the contents of each sac, and applying a solution of potash one part, water two parts. When a great number of comedones exists, a steam-bath should be first taken, and subsequently the surface be smeared with the soap or washed with a solution of potash in glycerine. In this way the sebaceous matter is removed, and the skin may, by the after use of a wash of ether, alcohol and sulphur, be restored to its natural state.

2. *Acne disseminata* is an inflammation of the hair-follicles, generally caused by comedones, and producing suppuration, with scars. The comedones being removed by a wash of one part of potash to eight parts of water, or by use of the soap, the sulphur lotion above mentioned may be used over night and washed off the following morning with the potash solution. When the eruption is extensive, we may rub in this soap, and leave it as a fomentation two or three days. After the epidermis has been removed by this means, the sulphur-preparation should be applied.

3. Against prurigo external applications are our only offensive weapons, and among these "*schmierseife*" is perhaps the most reliable. It should be rubbed into the affected portions of the skin the first three days of the week twice daily, and be allowed to remain the following four days. This method, with daily morning dressings of cold water, and cold baths on alternate weeks, must be continued for months.

4. In psoriasis the same treatment may be followed, or the soap used in combination with some preparation of tar. The internal administration of arsenic or cantharides is considered by Hebra of questionable advantage.

5. In the varied forms of eczema the curative effect of caustic potash is most marked. They have three different solutions in the Vienna Klinik: No. 1—Potassa pura, one drachm; water, one pint; as bath or fomentation. No. 2—Potassa pura, one drachm; water, half an ounce; for circumscribed patches. No. 3—Potassa pura, one drachm; water, two drachms; a caustic application. In addition, *schmierseife* and *spiritus saponatus*. Selection from these is made according to the extent and nature of the case.

The first step in the treatment is the removal of the crusts by warm oil and *spiritus saponatus*. Then the form of eczema is ascertained and generally found to be the *rubrum* or *squamosum*. If the cutis is much thickened by exudation, which we find by lifting a fold, the severer remedies must be chosen. The vascularity and enlargement of the capillaries in *eczema rubrum* are overcome by cold water, either in the form of fomentation or douche. Then solution No. 2 should be applied once or twice, by means of a hair pencil, or the soap twice a day, cold water being used at the same time to heal the excoriation perchance caused by this application. Eczema on the face must often be treated by the solution No 3, and the subsequent reaction is to be quenched by cold water. If the disease affects the whole surface of the limbs or body, it may be treated by saturating flannels with *schmierseife*, and applying them, covered with gutta percha cloth. These should be removed twice daily for the first few days, after which they may be suffered to remain for three or four days. This plan is to be continued till a cure results, unless ex-

coriations show themselves, in which case the cold water applications must be resumed. Against the dry scaly form (eczema squamosum), preparations of tar are of great benefit, especially the oil of cade and the oleum faginum or Russian tanning oil, diluted with alcohol, and laid on very thin. Tar applied to the whole surface of the body, often causes vomiting of black matter, black urine, and black diarrhoea. Relapses may follow this treatment as they do any other, but it prevents the recurrence of the disease more effectually, and works more rapidly than any other treatment. Chronic eczema of the scalp, for instance, may in this manner be cured in a short time, without internal medicine.

6. Itch is treated extensively with *schmierseife* all over Germany. Upon the ready action of this remedy are based the many quick cures brought forward for this disease. These methods, however, are not advisable, for often relapses follow, or eczema and excoriations, which are far more difficult to heal than the original disease. Hebra orders first a warm bath, and then the affected parts to be rubbed thoroughly with a coarse flannel cloth saturated with *schmierseife*. After washing off, the same parts are smeared over either with the "Vienna salve," (consisting of green soap and hog's lard, three parts of each; flor. sulph., *pix. liqu.*, a part and a half of each; *creta alba*, one part,) or with Hebra's own ointments, flour of sulphur, oil of beech or of cade, six ounces of each; *schmierseife* and lard, sixteen ounces of each, with the addition of chalk when necessary. This process is repeated every evening till itching ceases, but not more than three baths are generally allowed. Four days are usually sufficient to cure even very bad cases, although the eczema, papules and pustules caused by the insect often require some other treatment. In cases where fat cannot be used, the same amount of alcohol may be substituted. The beech and juniper oils are added to prevent excoriation or eczema by the excess of alkali and friction.

7. It is positively certain that pityriasis versicolor is caused by the fungus called *microsporon furfur*. The intolerable itching of this affection will cease with the death of the plant, and this is easily effected in a short time by daily inunction with *schmierseife*. Its effect upon the patches is wonderful.

Prof. Kletzinski found (*Ann. Med. de la Flandre Occid.; Druggist*, I. 9) that the skin put in contact with hydrochloric acid, either concentrated or mixed with glycerin, exhales 27.80 per cent. more of carbonic acid and 7.12 per cent. more of water than other parts deprived of this contact. Induced by this fact to try hydrochloric acid in diseases of the skin, he obtained the following results:

Hydrochloric acid can re-establish the functions of the skin, momentarily disturbed, by stimulating the local circulation, etc. It cures perfectly the cyanosis of the hands caused by cold and

frost bites ; applied prophylactically, it prevents these affections. It diminishes the sweat of the hands and feet, suppressing it definitely, if its use is sufficiently prolonged. It modifies advantageously a crowd of dermatoses of the most varied nature, but especially follicular acne. By its stimulating properties it dissipates the stains and exudations seated in the skin. Properly applied, it does not violate the integrity of the epidermis, although it destroys callosities. It presents all the properties of the best cosmetics, strengthening the skin and enabling it to resist better the influences that can reach it. For use, the hydrochloric acid ought to be pure, free from iron and chlorine. It is to be applied in as concentrated a state as the cutaneous sensibility permits. Sometimes even the fuming acid may be used. After from a quarter of a minute to a minute the part is washed with pure water and then with soap. The most concentrated acid is borne longest by the hands, a shorter time by the feet, less by the toes, and still less by the skin of the face.

Prof. E. S. Cooper of the University of the Pacific, declares (*San Francisco Med. Press*, Vol. I. No. 1) iron more reliable than any other class of remedies against certain affections of the skin. He gives the ferrocyanuret from two to four grains gradually increasing, three times a day to children over one year old, suffering from tinea capitis, continuing, if necessary, for months. In a few cases, intermittent fever arose from the use of the article, but subsided on ceasing the administration. Some of the most inveterate cases were cured principally by the persevering use of this compound. As a local application, mix one ounce of camphor with one drachm of chloroform, and add one ounce of tar ointment ; apply this to the head every third or fourth day.

In the different varieties of psoriasis most commonly seen in California, an aqueous solution of the potassio-tartrate of iron, used externally, may be depended upon : ferri potass. tartr., two ounces ; water, three ounces. Shake well and apply every day to the patches. The same solution has been used with the best effects against phagedenic ulcers.

The iodized glycerin is recommended (*Wiener Med. Wochenschr.*, *Boston Med. & Surg. Jour.*, April 26) in skin diseases in this form : Iodide of potassium and iodine, of each one drachm ; glycerin, two drachms. Dissolve the iodide in the glycerin and then add the iodine. Applied to the affected part, this solution should be covered with gutta percha paper, to prevent evaporation and increase the perspiration. It is left untouched for twenty-four hours ; the degree of reaction then apparent regulates any further application. Pain always follows, of varying intensity and duration, but no general inconvenience has ever been observed. The application acts as a caustic, exhibits really a heroic action in lupus, a remarkable efficacy in non-vascular

goitre, scrofulous ulcers and constitutional syphilitic ulcers, but it is doubtful in primitive chancres and eczema, and useless in psoriasis.

Tincture of larch-bark was tested at Dublin (The Druggist, I. 5, from Dublin Hosp. Gaz.) in purpura hæmorrhagica and found very efficacious, after the liquor pernitratis ferri had only aggravated the symptoms. Fifteen drops, administered every two hours, resulted in immediate improvement and shortly in a complete recovery, in four cases. Dr. Moore thinks the tincture is styptic and carminative; he declares it one, if not the most elegant form at our disposal of prescribing a terebinthinate, either as an addition to a compatible expectorant, or other fluid mixture, to be given *per se*. Dose of the extract: from one to five grains; of the tincture, from half a drachm to three drachms. These preparations are especially recommended for children.

Dr. Von Bærensprung (Ann. d. Berliner Charité; Prager Viertelschr., 1860, B. 65) found irritating remedies in the treatment of prurigo dangerous, and local anæsthetics of no effect. Relief is afforded by cold baths, washings and fomentations; the warm-bath, steam-bath, and bran-bath serve best to allay undue irritation. Anointing the skin with fat, or rubbing it with bacon, is also a good method. The proper remedial agents, however, are sulphur, tar, oil of cade, and corrosive sublimate. Slight cases can be cured with sulphur-baths and sulphur-ointments; obstinate cases will yield to about half a dozen water-baths containing each two drachms of corrosive sublimate, taken every second day or in greater intervals; but they ought to be taken in wooden tubs, metallic ones being damaged by the sublimate, besides endangering the result in consequence of decomposition.

An old remedy against herpes proved quite valuable to Dr. Ludkiewick (Tygodnik lekarski; Allg. Med. Cents. Ztg.) in an affection of somewhat doubtful character. While dissecting the body of a man infected with the glanders, he got inadvertently some purulent fluid from the corpse into his right eye. In spite of all due precaution, soon prurigo appeared all over the body, which, becoming limited, in the course of a few weeks, to one leg, changed afterwards into a papulous eruption, gradually presenting the character of herpes miliaris. This again changed to herpes squamosus humidus, at the same time spreading upward and downward, so as to cover almost the whole foot and one half of the leg. Erysipelas, with swelling, great sensibility, deep-seated boring pain and fever were soon added, but disappeared again, leaving the skin wrinkled, covered with ash-colored scabs, which came off and were formed again. Of course, everything promising relief was employed, but in vain. Some slight change, sometimes favorable, sometimes not, was all that could be achieved. The eruption even spread to the thigh, and although the

patient managed to walk again without pain, after a long course of medical treatment, (embracing a rigorous diet, whey-cure, mineral waters, cathartics, anylon, sulphur, sarsaparilla, Fowler's solution, sulphuret of potash, Scheibler's soap, issues, iodide of potassa,) there remained a great sensibility in the copper-colored skin of the affected part, occasionally aggravated by boring pains. Finally, the vapor of wine poured on hot iron-filings was resorted to, a remedy recommended in the sixteenth century by Franz Gœlis against herpes, impetigo and serpigo. Taking one of these steam-baths a day, the patient had the satisfaction to feel himself almost completely relieved after a course of twelve baths. An adhesive exudation from the affected parts followed the first three applications; after the fourth a kind of zoster appeared, but then the skin steadily lost its discoloration, the scabs and ulcerating surfaces began to heal, the pain disappeared almost entirely. Only a slight lancinating pain in the ankle-joint and a little redness remained, and even these, the doctor himself thinks, might have been removed, if he had used two baths daily, as originally recommended.—*Cleveland Med. Gaz.*

A Case of Ossification of the Muscles. By WILLIAM SKINNER, M.D., London, &c., of Manchester, Eng.

This singular case is that of a boy, thirteen years old, the second of eight children of healthy parents. He was quite healthy until about six years ago, when a swelling was noticed at the back of his neck, without any known cause. "This disappeared in about a week, another being observed behind the right shoulder. Three weeks later the arms gradually became so stiff that for about three months they were firmly fixed, and the boy was obliged to be fed. He, however, somewhat improved in this respect, and for some time past has been able to feed himself, although with much difficulty. From that time to the present, various lumps have formed in different parts of the body, these being principally about the spine and chest; and whenever the boy receives a blow it is followed by a similar swelling. Their appearance is preceded by pain, tenderness, and slight feverishness.

"The condition of the boy at the present time is as follows: He stoops somewhat; the shoulders are contracted; there is no motion in the right joint, and very little in the left; the arms cannot be extended, and are in a semi-flexed position, crossing the abdomen. The chest is narrow, very much flattened on either side, at the junction of the ribs with their cartilages, and these somewhat nodulated. There is no movement of the chest with respiration. The abdomen and lower extremities are well developed, the latter straight, without signs of rickets. There is no

movement in the spine, and the scapulæ are fixed; the buttocks and lower extremities present nothing abnormal. On manipulation, a number of small projections are felt over the ribs. The right pectoral muscles are completely fixed, and converted into a hard, bony substance. The lower edge of the greater can be traced from a nodule below the right nipple, crossing the axilla, forming a hard and sharp ridge, which is continued into the biceps as far as its insertion into the radius; a number of little bony nodules may be felt along its course, and a long irregular splinter of bone behind it. The muscles of the forearm do not seem to be affected. On the left side there is much the same condition of things as on the right, except that the muscles of the forearm are here beginning to be more or less fixed, and there exists a long, sharp, bony ridge from the outer condyle to about two-thirds of the length of the forearm.

“Posteriorly, on the left side of the neck, and apparently in the trapezius immediately after its origin from the occiput, is a projection of hard, bony substance, about the size and shape of a pigeon’s egg. Lower down, between the angle of the scapula and the spine, is a large, hard, irregular mass. In the dorsal region, at about the tenth and eleventh vertebræ, where the trapezius takes its rise, and apparently formed in the angle of this muscle of the left side, is another hard and somewhat movable mass. It is angular in shape, and extends upward on the side of the spine about one and a half inches, and outward and upward, in the lower fold of the muscle, about one inch. Moreover, in tracing the lower edge of this muscle to its attachment to the scapula some hardness is felt, and here and there sharp spiculae of bone-like matter. On the right side, about two inches below the lower angle of the scapula, is another hard and irregular projection, about the size of a large egg, the last which has made its appearance; apparently it is incorporated in the lower edge of the latissimus dorsi. In the lumbar region, on each side, hard, bony plates occupy both spaces. The buttocks and lower extremities are quite free from disease, excepting one small nodule, about the size of a common nut, situated over the right os calcis, at the insertion of the tendo Achillis.”

This boy exhibited no other structural or functional abnormality. He had taken iodide of potassium, but without any beneficial effect.

“Examples of this peculiar disease may be found recorded by Mr. C. Hawkins in *Medical Gazette*, 1843 & ’44; by Dr. Rogers, in Vol. xiii. of the *American Journal of the Med. Sciences*; by Dr. Wilkinson in the *Med. Gazette* for 1846; by Dr. Testelin in the *Gazette Médicale de Paris* for 1839. In the museum of the Royal College of Surgeons of England there is a fine specimen of the disease, the description of which is given in the *Pathological Catalogue*, Vol. v., p. 188, No. 3367.”—*Med. Times & Gazette*.—*Boston Med. Jour.*

Absinthe Drinking in France.

Fashion holds despotic sway in every phase of life. The drinking customs of nations yield to it. With us, hard cider has given way to lager beer, and in France, wine has been replaced by absinthe. A correspondent of a New York paper, writing from Paris, says :

The frightful effects caused by absinthe drinking in France are just now exciting a good deal of interest in the medical fraternity. Absinthe is drank in immense quantities by all classes of society in Paris. In front of the magnificent cafés in the boulevards, between three and five o'clock in the afternoon, hundreds of gentlemen may be seen sitting, mixing and sipping this villainous green liquor, which is taken by way of an appetizer before dinner. Workmen drink it in the low, corner establishments of the "marchands de vin." In different portions of the city are establishments which are crowded from morning till night, in which the sale of absinthe is made a "specialty," and where nothing else is sold. Ladies of high families are reported to have yielded to its fascination. It has been exported, and is used to an enormous extent in all the French colonies, and statistics of exportation show that immense quantities of it are sent to America; and it may not, therefore, be uninteresting to learn something about the composition and effects of this seductive liquor, which, from the actual irresistible power which it wields over its victims, as well from the similarity of its effects and the general and increasing popularity it has acquired, may not improperly be called the "opium of the west."

What is it made of?—In a paper recently read before the Academy of Medicine of Paris, M. Motet, a physician who has evidently devoted a good deal of attention to this subject, says, that the habitual use of absinthe causes a series of pathological manifestations extremely grave, and differing essentially from the effects produced by other alcoholic drinks. For ten years past, enormous quantities of it have been drank in Paris. The murderous beverage has been taken to Algeria, where it has been greatly abused by the colonists and the army, and where the heat of the climate tends greatly to heighten its deleterious effects. The effect of large doses, or of the habitual use of this liquor, is now well known, but the drinker returns to it in obedience to an apparently irresistible fascination, knowing that it is destroying him.

"Absinthe," which is a French word, meaning, in English, "wormwood," is a liquor made by the distillation of a number of plants with alcohol. These are the tops of the wormwood, flag-root, aniseed, angelica-root, leaves of dittany, (*origanum dic-*

tamnus,) and sweet marjoram. All these are placed in alcohol of very high proof, where they are allowed to remain eight days, when the mixture is distilled, and half an ounce of the essential oil of anise is then added to each three gallons of the liquor. The first care after the distillation is to see whether the liquor has a good color, and whether it will "whiten" well, and, if it is lacking in these essentials, it is brought up to the proper point with indigo, tincture of curcuma, hyssop, nettles, and sulphate of copper. Absinthe, however, requires no adulteration to make it a positive poison. Composed of plants of highly-exciting qualities, mixed with highly-concentrated alcohol, it acts directly upon the nervous system, having a much more positive effect than other alcoholic liquors. In the process of distillation, the plants furnish several volatile oils, which are among the most violent poisons, and, beside these, it must be remembered that a large quantity of the essential oil of anise is added. Probably few persons, in mixing their absinthe, have ever stopped to consider the cause of the "whitening," or ever thought that the better the liquor "mixes" the more powerfully poisonous it is. The white deposit, which, in precipitating, renders the liquid turbid, comes from the essential oil of anise, wormwood, angelica, &c., which are held in solution of alcohol, but which are not soluble in water, or alcohol weakened with it.

Its Effects.—So much for the composition of this vile compound. Now for its effects, which in a sentence, are summed up by Dr. Motet as a general poisoning of the system, which, terminates in insanity and death. The following are given as the primary effects of the habitual use of absinthe: The muscular system is brought into a state of uncertainty and indecision, which is easy to recognize by contractions and trembling of the forearm, of the hand and inferior members. Strange sensations are observed by the unfortunate victim—such as tingling and pricking of the skin, heaviness of the limbs, and numbness—the hand seizing and as suddenly letting go anything within its reach. In standing, the patients require something to lean against, not being solid upon their legs; the knees tremble and bend—a general air of hebetude marks the features; the lips, the tongue, and the muscles of the face tremble; the eye is sad and sorrowful; the skin becomes yellowish; dyspepsia and wasting away ensue; the mucous membranes assume a violet hue; the hair falls off, and the whole frame-work of the man falls into a premature old age and dilapidation.

Such are the bodily signs of absinthe poison—and the mental troubles progress concurrently with the disorders of the muscular system. By reason of the progress of the disease of the brain, the sleep of the patient is disturbed; he has terrible dreams, and nightmares, and sudden wakings. He has hallucinations, illu-

sions, blinding of the eyes, vertigos, hypochondria, a very marked embarrassment and dwelling upon words in speaking, and a constantly-decreasing strength of intellect. Such is the sad cortege of symptoms presented by the unfortunate victims of the terrible absinthe poison.

Nothing, says Dr. Motet, can stop the progress of the disease of the brain. Sometimes the symptoms will be more favorable, for a greater or less time, but the respite must not be taken as a sign of approaching cure, and a little sooner or a little later death steps in the midst of epileptic attacks, at a time when there is scarcely any human intelligence remaining—when the animal alone exists, and in a state of degradation of which no description can give an accurate idea.

Its Prohibition in the Army and Navy.—The French government has prohibited the use of absinthe in the army and navy—even to the officers—and it is said that an attempt is to be made to prevent its importation into the colonies. Deaths and insanity, the result of its habitual use, are, I am informed by a medical friend of mine, very common in Paris; and that on the tombstones of several of the prominent men in the literary world, whose lights have gone out during the past ten years, might with truth be written, “died of absinthe.” And yet, with all these terrible facts before them, the use of this villainous mixture is daily increasing, and it is by no means improbable that the government, which interferes in matters of much less importance, will find it necessary before long to adopt a “Maine liquor law,” prohibiting the sale of the poisonous compound.

[*Ohio Med. & Surg. Jour.*

Hæmatidrosis (Bloody Sweat). By C. A. HARTMANN, M.D.,
of Cleveland, Ohio.

Dr. J. Parrott, having observed a case of this at present much doubted disease, furnishes a complete history of the same (*Gazette Hebdomadaire*, 40-47, 1859). His case is as follows:

Madame X. was born in 1832. The father expired from a nervous affection, but her mother enjoyed good health. At the age of seven months, the patient received some wounds on several fingers of the right hand, which wounds cicatrized only after a lapse of two years. In her sixth year she suffered, without any apparent cause, from convulsions, with loss of consciousness, two or three times a month; afterwards the scars would bleed, without any cause and without pain. One morning bloody tears appear-

ed after a fit of anger, and since then bloody perspirations were occasionally observed on the knees, thighs, the chest and the lower eye-lids. With the appearance of the menses, at the age of twelve years, these manifestations decreased for a time in frequency, but soon returned with greater vehemence. The face became often quite suddenly covered with blood. These bloody sweats always followed physical emotions, and were accompanied with nervous disturbances, a loss of sensibility and mobility. The patient was married at twenty-five. The convulsions grew more frequent at first, disappeared during gestation, but returned after delivery, with a hæmorrhage. During the year 1858, Mrs. X. felt much better, until she got sick in consequence of sitting up at night with her child. On the first of April, she was attacked by a swoon and convulsions, the face appeared covered with blood, and heavy pains through the abdomen, thighs and head distressed her. Dr. Parrot, being called, found very frequent convulsions, with bloody perspiration on different parts of the body. Spanish-fly plasters to the most painful parts, inhalation of chloroform and large doses of opium gave some relief, and on the twentieth day of May the patient was allowed to go to the country. She returned in five days. The menses made their appearance several days beyond the regular time. May 25th, at 4 P. M., the patient was attacked by pains in the sides, breasts, the hypochondric and epigastric region; in a short time a bloody perspiration on all these parts followed, with epileptic fits; on the front part of the head there was a regular circle of blood-drops, and blood also exuded from below the cilia on the lower eye-lids. Neither before nor after the exudation did the skin present any abnormal appearance. Relief was afforded by large doses of morphine; the monthly discharge established itself and ended the trouble. September 28th, pain and bloody sweat over the right side of the face, with epileptic fits; no menstrual discharge. On the 18th of November, headache, convulsions, blood all over the face. The next day ejection by the mouth of about two spoonfuls of arterial blood, with heavy pains and bloody perspiration in the epigastric region. January 25th, again disturbed menstruation, epileptic fits, pains, bloody sweats; the next day almost mania, every paroxysm terminating with vomiting, spasm of the glottis, and somnolence; the pains and exudation of blood continuing. Towards evening regular flow of the menses, cessation of all other symptoms. Two days afterwards, the menses becoming disturbed, hæmatemesis, tetanic convulsions and bloody perspiration set in again.

Between the paroxysms, this patient appeared perfectly healthy and her intellect unimpaired; she presented nothing of the mental depression so common in epileptics.

In connection with this case, Dr. Parrot cites five other obser-

vations of a similar character. Fried. Hoffmann (*Opera Omnia*, Genevæ, 1748, iii.) noticed blood-sweating following the suppression of fluor albus in a hysterical patient; Boerhaave (*Comment. in Aphor.*, Parisis, 1765, tome iv.) saw a similar secretion in a girl also suffering from hysterical complaints; Caizergues observed (*Ann. Clinique de Montpellier*, 1814) sanguineous sweats in a woman of thirty years, and Chauford, in a girl of twenty-one; finally, Prof. Magnus Huss refers (*Arch. Gén.*, 1857) to a girl twenty-three years old, as being a bleeder; but Parrot considers this case as belonging to hæmatidrosis.

The exuded fluid presents all the physical properties of healthy blood, containing the regular shaped and colored corpuscles, with a few white globules and fragments of epidermis. The skin is never broken or in any way affected; it seems, therefore, as if the discharge was effected through the odoriferous glands, occurring as it does frequently in such parts where neither sebaceous glands nor hair follicles are known to exist. In order to explain the exudation, we have to adopt the occurrence of a rupture in the superficial capillary vessels.

Sanguineous perspiration is always accompanied by affections of the nervous system. The seat of the discharge, variable as it is, will always be found in strict connection with the pain and spasm. In Boerhaave's case, only the right side of the body was affected; in Dr. Huss's patient, the left side.

Sometimes, there are no premonitory symptoms; at others, a great excitement precedes the exudation. The paroxysms are either irregular, depending only on the nervous derangement, or they manifest a periodic type. Their duration varies from a few hours to several days.

Females are particularly subjected to hæmatidrosis, but the disease appears to be limited to the years of youth. Among the predisposing causes are enumerated the irritable temperament, angry disposition, mental exertions, sitting up during the night, moral impressions. Severinus, Durrius, Maldonatus de Thou, speak of bloody sweat appearing suddenly after fright. It seems therefore probable that the nervous excitement produces the rupture in the blood-vessels, and for that reason the affection we are speaking of might be called neuropathic hæmorrhage, the exudation not being limited to the external surface of the body. In the patients referred to by Caizergues and Huss ecchymoses were present with the hæmatidrosis. Lordat mentions a woman, who, on being taken to the watch-house, had a hæmorrhage from the mouth and nostrils, while her body was covered by ecchymoses. Bloody tears have been described by Boerhaave and Huss. Van der Viel was acquainted with a girl who shed blood instead of tears whenever she grew angry or had her monthly irregular. Zacutus Lusitanus saw blood to the amount of three or four

ounces flow from the eyes of an epileptic during his fits ; the same occurrence was observed by Brassavola and Dodonæus in combination with difficult menstruation. Hasner furnished (*Wiener Allgem. Mediz. Ztg.*, Nr. 51, 1857) the latest evidence in regard to this point. Hæmatemesis has been mentioned by Huss. Michel Albert treated a woman who vomited blood whenever she got excited during menstruation. Similar cases are narrated by Royer-Collard and Dalmas. Boerhaave and Caizergues noticed the coughing up of blood. Latour and Hoffmann observed also hæmoptysis from disturbed menstruation. Epistaxis was present in the cases of Boerhaave, Stahl and Latour, while the last named physician, as well as Van der Viel, Van Hur and Monneret, refer to bloody exudations from the nipples, the urinary passages and the intestinal canal. In all such hæmorrhages the glands in the neighborhood of the mucous membrane or the external surface (*lacrymal, salivary, criptæ mucosæ*) are the transmitting agents of the exudation. Its connection with nervous symptoms has been entirely overlooked.

This view of hæmatidrosis points to the treatment: all debilitating applications are to be avoided, and principal attention must be paid to the disturbance of the nervous system.

[*Cincinnati Lancet & Obs.*

The Philosophy of Stinks. [From the Annual of Scientific Discovery—Abridged from the London Review.]

There is a fallacy in the almost universal opinion that, because a stink is unpleasant, it must necessarily be injurious to health. Yet a very small survey of familiar facts would disclose that our likings and dislikings in the matter of smell or taste, are by no means accurate criteria of what is wholesome and what is noxious. Unfortunately, we like many things that are notoriously injurious; and many things that are unpleasant are notoriously beneficial. Not only are these familiar truths, but a little inquiry discloses a mass of evidence which proves that even the odors of a too composite river, or an ill-drained district, unpleasant as they may be, are very far from carrying pestilence and plague with them wherever they go. We are not going to assert that the question of drainage is not very important. We have no desire to propound the paradox that stinks are wholesome because disagreeable; but we call attention to the fallacy of assuming that, because they are disagreeable they must necessarily be injurious.

Is it a demonstrated fact that the exhalations from a foul river cause cholera and fever? So far from its being demonstrated, the evidence at present seems decisively opposed to such a conclu-

sion. Is it demonstrated that the exhalations from the sewers cause cholera and fever?

The public, generally, has no doubt upon the subject; but an English physician of some note, Dr. Parkes, has recently, in a published work, assumed the position that the evidence we possess in regard to these matters is altogether against the theory that cholera, fever, and other diseases are owing to the decomposition of organic matter and the use of impure water. His evidence is founded on experience of very various climates and latitudes—the intertropical regions of the East and West, the burning sands of Arabia, and the snow-covered steppes of Russia, as well as the more temperate regions of Europe and America—evidence, which, if not conclusive, is at least exceedingly interesting.

Thus, the injuriousness of imperfect drainage is said to arise from the noxious influence of all organic matters, animal and vegetable, when in a state of decomposition. That putrid flesh and vegetables are generally unpleasant, both to taste and smell, is a fact; but are they as injurious as they are unpleasant? Some putrescent matters are injurious when eaten, although many can be, and are, eaten with impunity, and all of them are injurious if they enter the blood. The surprising fact that the Indians kill their game with poisoned arrows, yet suffer no harm from eating the flesh thus poisoned, is intelligible to the physiologist, who sees that the poison of the arrow enters the blood of the animal; but the poison of the poisoned flesh, which is eaten, does not enter the blood. It is on the same principle that we can explain why an anatomist may spend day after day over putrid bodies, (in an atmosphere the stench of which makes the stranger sick,) yet suffer no harm beyond what would result from sedentary confinement in any other room; nevertheless, let this anatomist scratch himself with the scalpel which he has just used, and this little wound may be his death. He could breathe the air laden with the products of decomposition, and, if oxygen were sufficiently abundant for respiration, no harm would ensue; but he could not admit decomposing matter into his blood without serious injury.

In the above paragraph we have briefly stated what seems to us the physiological principle involved in this question. Putrid substances are poisonous only in the blood; but the gaseous products of putrescence are not poisonous. We assume, of course, that the gaseous products are not too abundant to prevent respiration; otherwise the effects of imperfect respiration will ensue, but these are not cholera or fever.

With this preliminary explanation, let us now look at Dr. Parkes's evidences:

Magendie arranged a cask in such a way that the bottom could hold putrid substances, whilst animals were placed on a grating

with a double bottom, exposed to the exhalations which constantly escaped. Rabbits, guinea-pigs, and pigeons were left thus for a month, but did not experience any ill result. Dogs, on the contrary, began to lose flesh on the fourth day, and, although they preserved their gaiety and appetite, died at the end of ten or fifteen days. But the dogs showed none of the symptoms of poison; they showed none of the symptoms observed in dogs into whose veins putrid matters had been injected. Their death was obviously caused by imperfect respiration. Rabbits and guinea-pigs require less oxygen in a given atmosphere than dogs, by reason of their smaller size. But that exhalations from decaying matters are not injurious, when respiration is unimpeded, seems evident from the experience of leather-dressers, knackers, butchers, and others. Mr. Newman informs us that the leather-dressers in Bristol are not only healthy, but more so than the rest of the neighboring poor, although, during the last part of the process, the stench is almost intolerable. In the tan-yards at Bermondsey, there are about seven hundred workmen, all remarkably healthy. Again, Dr. Chisholme says, that, in a manufactory near Britton, for the production of muriate of ammonia and sulphate of soda, and where the distillation of the medullary oil produces the most nauseating fetor, no fever is known to arise, although the neighborhood is thickly populated. The same exemption has been remarked at a manufactory near Bristol, for the conversion of dead animals into a substance resembling spermaceti; and where the same putrid exhalations are given out. Further, slaughter-houses, which, according to theory, ought to be centres of pestilence and fever, have been singularly exempt from them, as was noticed during the plague and during the cholera. Dr. Tweedie says: "Though every description of mechanic was at some period or other admitted last year into the Fever Hospital, I do not recollect a single instance of a butcher being sent to the establishment."

The perfume of the graveyard is far from agreeable, and graveyards have for some years been regarded as centres of pestilence and fever. When pestilence and fever are raging in a district, it is not difficult, of course, to find that a graveyard is somewhere close at hand; but this is extremely imperfect evidence of any necessary connection between the two; and it becomes still more suspicious when we find that at Bridgetown, Barbadoes, eight thousand bodies were buried in six weeks in a space of two acres, yet, neither fever nor any other disease attacked the inhabitants afterwards. The same remark applies to nearly all the large towns in the West Indies, in consequence of the practice of burying cholera victims in one spot. In the burial-grounds near Seville, ten thousand bodies had been recently interred, when, in 1800, the French government sent a commission to inquire into

the causes of yellow fever; and although a fetid odor was exhaled from the decomposing bodies, no ill result followed to the thousands of the inhabitants who went daily to visit the graves of their relatives and friends. And what shall we say to the Cemetery of the Innocents at Paris? In the course of thirty years, ninety thousand bodies had been buried there by one grave-digger, and it was calculated that more than six hundred thousand bodies had been buried there during the six previous centuries. In a space not exceeding two acres, it had been the custom to bury the bodies of the poor in common pits, and they were placed so close to each other as to be only separated by planks of six inches each. These pits were twenty feet wide and twenty deep, and each contained ten or fifteen hundred bodies. It is difficult to say how Paris escaped from continuous attacks of cholera, and how the grave-digger managed to breathe this atmosphere during thirty years, if graveyard exhalations are the fatal poisons they are declared to be.

The authority of Duchâtelet is invoked in a very striking case. At Montfauçon, in Paris, there is one of the most extensive knacker-yards in the world. Thousands of horses, dogs, and cats, are slaughtered there,—the flesh and offals after the animals are skinned, being allowed to remain and putrefy for the purpose of manure. "Every one," says Duchâtelet, "can examine the foetid odor produced by heaps of flesh left to putrefy for months in the open air, and in the heat of the sun; to which must be added the gases given out from mountains of skeletons not properly cleansed from the soft parts, and the emanations arising from a soil saturated from year to year with blood and animal liquids. But if you interrogate the numerous workmen who belong to the establishment, they will answer that they are never ill, and that the effluvia which they inhale, far from injuring them, contributes to keep them in good health. If you examine them, you will see they have all the appearance of the most perfect health. The robust health of the wife and five children of Friand were remarkable, for they had all the year worked and slept in a place which was actually unapproachable to the members of the commission, on account of the stench." He also notices the longevity of those knackers. "Many of them are sixty or seventy years old, quite robust and active. Inquiries showed that their parents died at an advanced age; of the last three knackers that died, one was sixty, another seventy, and a third eighty-four."

Such are some of the facts adduced by Dr. Parkes in support of his views, and sanitary reform will not be aided by eluding or suppressing them.

[*Berkshire (Mass.) Med. Journal.*

Chlorate of Potash as a Prophylactic.

In the American Medical Times for June 8th, Dr. S. H. Smith (of New York) has an article on the remedial properties of the chlorate of potash, in which some new properties are ascribed to it. After speaking of its good effects in chronic bronchitis and typhoid fever, as recommended by Dr. James Copland nearly thirty years ago, he expressed the opinion that its greatest value is as a *prophylactic*. He says: Given in conjunction with quinine and mild aperients, I have seen it repeatedly stave off attacks of fever during epidemics, even of 'Irish emigrant' or 'ship' fever; the premature laying aside of the medicine being followed by immediate return of the threatening symptoms, again to be dispersed by a recurrence to its use. In the state of constitution favoring the eruption of boils, felons, whitlows, and carbuncle, I have perfect confidence in the curative powers of the same prescription."

We object to this wholesale ascription of all the benefits to the chlorate, and thus robbing the "quinine" and "aperients" of their share in the glory. As a prophylactic against fever, we certainly think the quinine is not *second* to the chlorate, though the conjoint action of the latter may increase its power for good.

Dr. Smith says further: "A long experience of the value of the preparations of chlorine in adynamic conditions, caused by or accompanied with a presumable septic change in the blood, has led me to make trial of them in those forms of *mental* disease associated with an unusual lividity and coldness of the lips, extremities, and sometimes tip of the nose, evidently due to an embarrassed capillary circulation, and that, as I conceive, ascribable to some morbid condition of the circulating fluid itself." * * * *
"Again and again has the use of the chlorate of potassa corrected the condition of the circulation in question, *when all other means had been tried in vain*, speedily removing or diminishing the lividity, coldness, and sluggish movement, with a corresponding improvement in the health of both body and mind."

His maximum dose is ten grains. It will be seen that Dr. Smith's views harmonize somewhat with those given above, and taken from Crawcour's lecture. It is in adynamic conditions, with accompanying evidences of undue aëration of the blood, that he derives such great advantages; it is in such cases that uric acid deposits occur, and in which Prof. Crawcour would advise its use.

The chlorate of potash was once in as great repute as now. As it has lately been brought into notice as an important remedy in consumption and scrofulous diseases generally, and as this is supposed by many to be a novelty, it may not be uninteresting to make a quotation from Prof. T. D. Mitchell upon this point:

This salt was at one time much employed in the treatment of pulmonary consumption. Dr. Kolen of the Berlin Hospital gave it with a pretty liberal hand, and was one of its *most sanguine admirers*. His favorite prescription was as follows :

“R.—Chlor. pot. 3 ji.
Aq. distill. 3 iv.
Syr. althæa, 3 j.

Dissolve the first two and add the syrup named, or any simple syrup. The dose is a tablespoonful four times a day.

“Some physicians in this country made repeated trials of the chlorate in various forms of the same disease, but not with sufficient success to warrant us in reposing much confidence in it as a means of doing service to consumptive patients.” * * * “Its happy effects, in some cases of scurvy and in malignant scarlet fever, show pretty clearly that it makes a deep impression, and a good one, too, on the blood.” * * * “The same salt has been employed with good results in the treatment of unhealthy ulcerations.” (See Mitchell’s Therapeutics, pp. 695, 696.

[*Med. & Surg. Reporter.*

A Remarkable Surgical Case.

A Paris correspondent says that at a late meeting of the Academy of Medicine an extraordinary surgical case was related by M. Jobert de Lamballe, as having recently been treated by him at the Hotel Dieu, one of the public hospitals of Paris. During the war in the Crimea, a French soldier, serving in the trenches before Sebastapol, was struck by a Russian ball upon the *os frontis*, making a hole about the size of a franc piece. He fell immediately, and was taken to the hospital, where he remained for twenty-four hours in a condition of utter insensibility. A few days after, however, he returned to the trenches and finished the campaign, and came back to France at its conclusion. Since then, however, he has frequently found it necessary to go upon the sick list, complaining of pains in the head and vertigo—and there has been an almost continual suppuration around the fracture. Before his entering the Hotel Dieu, M. Jobert states that he suspected the presence of some foreign substance, and that upon sounding for it he found the ball, and proposed to the patient to extract it, to which he willingly consented, and the ball was taken out, after having remained in his head twenty-nine months. The ball weighed twenty-five grammes, (a little less than an ounce,) and was found resting upon the *dura mater*, surrounded by hard, blackened blood. It was flattened in some places, which gave reason to believe that it had made several

ricochets before striking the soldier, which, of course, broke the force of it considerably. The operation has been a complete success. The patient is now in excellent general health, and no longer complains of the pains in the head, which have troubled him ever since he received the wound.

[*Ohio Med. & Surg. Jour.*

New Experiment Regarding the Origin of Cow Pox.

The opinion of Jenner regarding the origin of vaccinia, alternately supported and contradicted by various observations, is at present, at Toulouse, being tested by new experiments, of which, Dr. A. Fontan has given the following account, dated Toulouse, May 24th, 1860:

"A happy accident occasioned my passing through Toulouse at a time when a question of the highest importance was being submitted to experiment, I mean the question of the origin of vaccinia. The following is an abstract of the principal facts: Some weeks ago, M. Sarans of Rieumes observes, that several mares brought back to his establishment for the second or third time, were affected with the *grease* (*eaux-aux jambes.*) There was a sort of epidemic of the affection, for nearly a hundred horses were found to be suffering from it. The variety of grease was the pustular form.

"One of these mares was taken to Toulouse to the veterinary school, where the learned Prof. M. Lafosse recognized the true character of the epidemic. He inoculated with some of the matter of these pustules the teat of a cow, in the presence of his assistant and numerous pupils. Soon afterwards, fine pustules made their appearance on the udder of the cow. One of the most distinguished physicians of Toulouse, Dr. Cayrel, the official vaccinator of Toulouse, vaccinated with matter from the pustules of the cow, several infants who had never been vaccinated. Well characterized vaccine vesicles followed, presenting their pearly aspect, central depression, and rose-colored areola, increasing in size from day to day without any trace of erysipelatous inflammation.

A second cow was vaccinated with matter from the first cow, and infants were vaccinated with the matter from the second cow; the results were equally satisfactory as in the former case. At present they have arrived at the fourth vaccination from the first cow, and at the third from the second cow. I was present at this vaccination; the vesicles were very fine. One was photographed in my presence, with a tolerable satisfactory result. The vesicle presented the most characteristic appearance of vaccinia. When

pricked, no purulent matter escaped, but gradually a serous fluid oozed out in great abundance, with which several infants were vaccinated.

“The new matter is very active, and succeeded in the case of a pupil of the veterinary school, vaccinated in infancy, and in whom all attempts at re-vaccination had failed. I saw a vesicle in an infant produced by the virus of this pupil, finer and more developed than three other vesicles produced by an ordinary vaccination in the same infant. (No doubt the two vaccinations were performed simultaneously.)

“Already thirty infants have been vaccinated at Toulouse. No unpleasant symptoms have manifested themselves in any case; and in all, the result has been most satisfactory.”

“Dr. Izarie, formerly vaccinator in Paris, considered the vesicles so good, that he had his son vaccinated this morning with virus from one of the infants.

“An official commission has been named by the Prefect to carry out these experiments. A report will be drawn up and communicated in due time.—*Edinburg Med. Jour.*—*Southern Med. Jour.*

A New Sign of Post Partum Detachment of the Placenta.

By JOHN CLAY, M.R.S.C., of Birmingham.

From investigations, with a view of improving upon the old plan of management of the delivery of the placenta, Dr. Clay ascertained that a very simple sign existed, by which its separation, after the birth of the child, might be indicated, having tested it in upwards of nine hundred cases. Before dividing the umbilical cord he applies two ligatures. If the maternal part is now examined, it will be found in a flaccid condition, and almost free from blood; but after an interval of from one to three minutes, it will be found to have acquired specific weight, and that the vessels are more or less filled with blood. The one fact may be ascertained by poisoning the cord on the fingers; the other by slightly grasping the cord near the vagina, with the thumb and forefinger of the left hand, and, with the right hand, suddenly compressing it, when a well-marked sense of fluctuation is perceived, a kind of resilience like that felt when an elastic tube filled with fluid is suddenly compressed. When the placenta is detached, the cord loses its increased specific weight and the hydrostatic property just mentioned. This is so invariable, that the loss of the previously acquired hydrostatic properties of the cord after the birth of the child constitutes the sign of the detachment.

The whole of the phenomena are manifested in three stages—flaccidity, repletion, flaccidity.

If the cord be tightly grasped by a spasm of the os, or by irregular contractions of the uterus, the loss of the hydrostatic properties may for a short time be delayed. These signs are not, of course, equally marked in every case. When the uterus is flaccid, they are but slightly manifested, though perfectly reliable. When, on the other hand, the contraction is firm, the most inexperienced may detect them. In cases of partially adherent placenta, the disappearance of the hydrostatic properties, and the failure to deliver the placenta by the usual manipulations indicate the necessity for artificial detachment by introducing the hand. In twin cases, the signs persist till after the birth of the second child, except where the two placentas are present.

It sometimes occurs that the placenta is separated simultaneously with the birth of the child. Here the first series of phenomena are absent, and it may be generally effected with safety.

The practical value of these facts is obvious, as the placenta, when thus known to be separated, may be at once extracted. The prompt delivery of the placenta is very important, as the uterus then contracts more effectually, the risk of hemorrhage is not so great, and it may be fairly assumed that the convalescence is less protracted.

To inexperienced practitioners it might be a safe instruction to impart, not to interfere in the extraction of the placenta so long as the hydrostatic properties herein defined are persistent.

[*Dub. Quar. Jour.*—*Southern Med. Jour.*

Infant Alimentation. By M. A. BAINES.

SIR—At the Bradford meeting of the Social Science Association last year, I had the pleasure of contributing to the Public Health Department a paper on the "Practice of Hiring Wet-nurses," showing the numerous evils which are involved in that system; my object being to prove that the cases are very rare in which a wet-nurse is really needed, and that the abuse of the practice must necessarily lead to very serious consequences, not only to individuals, but to the community at large.

This idea being accepted, a question naturally arises as to the best substitute for breast-milk in the case of hand-reared children. To that question I shall attempt to give a satisfactory answer. A few preliminary observations will be necessary.

In a paper presented to the Sanitary Section of the International Statistical Congress, which held its session in London this year, I pointed the want of accurate information on the subject

of wet-nursing, and suggested a simple method by which figures might be obtained in order to show the extent to which the custom prevails in this country; such machinery being set at work, an important means will be available for collecting very interesting and valuable information on subjects of a kindred nature.

The practice of employing wet-nurses cannot be considered and inquired into without revealing many startling facts which are connected with the system. Among its most disastrous results may be regarded the fate of the wet-nurse's child, which is in most cases put out to *dry-nurse*, falls into ignorant or unprincipled hands, and, as a consequence, too often meets with premature death. Space does not permit me to enter into a consideration of all the *moral* evils of such a system, but it is enough to speak of the *indifference to infant life* which is thus fostered, and which is evidenced by the fact that a mother is induced, and too readily yields, to the temptation to sell her child's life for the temporary indulgence in ease and gain. Oh! let those who have any influence in this matter pause ere they help to sever those holiest and purest of earthly ties which Nature has intended, with wise purpose, should exist between a mother and her child.

In the paper on "Statistics of Wet-nursing," I alluded to one or two subjects which, although not coming immediately under the inquiry therein indicated, nevertheless present some significant features in relation to it, and for that reason deserve some attention here. I refer to the large number of infants said to be annually "still-born" in this country, and also to the system carried on with regard to children whose names are entered on the books of burial clubs.

With respect to the first named subject, Lord Shaftesbury, in his address at Liverpool on Public Health, made the following statement—that no less than 60,000 "still-born" children are produced in this country every year; adding, that "it is a portentous fact, which demands the most solemn investigation."

I am not aware what idea the noble President connected with the fact to which he called attention with so much earnestness; probably his Lordship had in view the unsanitary condition of things which it discloses. Certainly that is a very grave matter—one which may with advantage be inquired into. Why, it may be asked, should so large a number of individuals—so large a portion of the female population—fail to fulfill the natural laws of their being, and thus contribute to such an abnormal and astounding fact as that indicated in the high rate of the "still-born?" Again, how is it that so many mothers who give birth to living children are unable to afford them the maternal nourishment which is their birthright, thus depriving their offspring of the best chances of maintaining existence?

The latter subject was alluded to by Mr. E. Chadwick, at the

International Statistical Congress. His remarks referred only to what takes place in Manchester; but it would be worth while to collect information on these points as regards every town and district in the kingdom.

These inquiries are serious enough in a sanitary point of view; but I fear they present another side still more painful and portentous; I allude to the criminal aspect, especially as regards the 60,000 "still-born." It is probable that more than half of that number ought not to have been so recorded. And to check the evil in future, the law must be brought to bear upon the system to which the evil is due. At present the great facilities afforded for the disposal of "still-born" children offer free inducements to infanticide, which crime is on the increase, and is, no doubt, perpetrated wholesale in some parishes and districts. Dr. Bachhoffner, the Register for Marylebone, has lately instituted inquiries into this matter in the district over which he presides. Some startling facts have been elicited, and the investigation is still being prosecuted; but from what has already transpired, there can be no doubt that some restrictive clauses are urgently needed in the Burial Act with reference to the disposal of infants said to be "still-born," such subjects having been hitherto enclosed in the coffins of adults without the payment of regular fees, and without requiring the production of a medical certificate.

It will be at once obvious how full of meaning are the foregoing facts in connexion with the subject of this paper, when I suggest that it would be interesting and instructive to know how many of the mothers of "still-born" children had, previous to the birth, decided upon taking up the vocation of wet-nurse. And, again, how many of the infants whose names have been entered on the books of burial societies, and who die prematurely, are children who have been put out to *dry-nurse* to enable the mothers to take places as "wet-nurses."

Although it was my intention to treat the subject of this latter strictly in its sanitary aspect, and to address my remarks more particularly to medical men, I have been almost unconsciously led into the consideration of other social questions of equal importance; and I have no reason to regret having entered upon the more extended view of the subject, because, in the first place, they are questions which must be interesting to all social reformers; and secondly, I think that those (I refer now to members of the medical profession) who would desire to aid the special cause we are about to consider, would do well to regard it, not only in its physical aspect, not only from what is termed a "medical point of view," but in reference to its moral and social relations and influences.

In a paper which was read in London last February before a medical audience, I advocated the use of vegetable or farinaceous

substances, in combination with cow's milk, as a proper food for infants, from the earliest period of existence.

Hand-feeding has got into disrepute because it is in general so unsuccessful in its results; and as "convulsions" and other disorders, terminating fatally in childhood, are often traced, when properly investigated, to the improper use of farinaceous substances, a prejudice has arisen against that kind of food, and it is interdicted as injurious by medical practitioners; consequently the public, taking alarm without reason, look upon farinaceous food as little short of poison in its pernicious effects upon the infant constitution. This is a foolish and fatal error! Not less absurd, though far less mischievous, would it be to prohibit bathing altogether, because some reckless persons, ignorant of the art of swimming, plunge into the water, and are drowned. I am strongly convinced that it is not so much the kind of food that kills as the ignorant manner in which food given to infants is prepared and administered.

There are two extremes prevalent, both equally to be deprecated; namely, the excessive use of farinaceous food, and its entire prohibition. I consider that to depend wholly upon animal milk is a most disastrous practice, and in many cases induces disorders which, if they do not always terminate fatally, set up a condition which predisposes to various ailments in more advanced childhood, and even in later periods of life. These disorders are rarely referred to the true cause, but are described as "constitutional," "developmental," and so on; when the truth is that the system, being deprived of the elements in its food necessary for growth and development, suffers from *defective nutrition*, and consequently has not power to carry on its processes in a natural and satisfactory manner. It would be curious to know how many of the deaths returned in the registers' reports under "want of breastmilk," are those of children who were attempted to be reared (but in effect were starved) upon animal milk alone; I fancy the numbers would quite equal those of the children who die in convulsions from "over-feeding."

I cannot now enter upon the chemical and physiological arguments which I am prepared to advance in favor of my theory; I will only state that I believe chemistry (as far as it is known to us at present) cannot be trusted in this matter. What I mean is this: that although we may learn by chemical analysis that cows' milk approaches nearly to human milk in its constituents and their relative proportions, that fact affords no satisfactory proof that animal milk contains in its elements or component parts the necessary qualities or properties suitable for the nutrition of an infant, so as to render that milk a safe substitute for breast-milk without the addition of other substances; indeed, *experience tells us quite the reverse*. And as to the physiological facts which have

been brought forward by opponents to my views, I have explained at some length in another place, that I interpret those same facts in a manner to favor my argument. (Comparative anatomy does not teach me that *because* vegetable food is indicated as suitable for digestion in the case of the young of the animal creation, *therefore* the anatomical construction of the human stomach shows the same food to be unsuitable with regard to the human infant.) Chemical analysis may aid us in discovering truth, but I have said that it must not be trusted entirely; *experience* will prove a better teacher in such matters; for out of well-observed facts we may draw practical conclusions, and trace them with something like certainty to their respective causes. I am induced on this account to suggest (and I do so with much deference), that unless any medical practitioners can bring their *experience* to bear upon this question, they will reserve their remarks; for although I am anxious to induce discussion on the subject of this letter, I should be sorry for the cause to be prejudiced by the mere repetition of old objections, having no better authority than that derived from the dogmas which belong to *routine practice*, and based upon no solid nor tenable foundation.

If any medical man would undertake to conduct a series of experiments as to the value of farinaceous foods in the cases of children who may be depending entirely upon *artificial feeding*, such a practical experimentalist would perform a signal service to mankind. Let a fair trial be made under the direction and observation of the medical attendant, and let him report the result to the profession and the public through the medical journals, whose columns are always open to contributions which are calculated to benefit the cause of science and humanity.

[*London Lancet.—Pacific Med. & Surg. Jour.*

Sun Stroke.—As many as *thirteen* deaths have already been reported as occurring from sun stroke in this city during the excessive heat of Sunday last, (August 4th). In almost every instance, as we are informed, they were persons of intemperate habits, who, in addition to the severity of the weather, had exposed themselves to the heating effects of alcohol. We have, in fact, so often noticed that the victims of intemperance are most apt to fall a prey to sun stroke, that we have come to regard alcohol as the chief predisposing cause of this fatal affection. Those, therefore, who resort to stimulants of this kind to keep themselves cool in hot weather, are guilty of the folly of adding fuel to the fire which they pretend to be extinguishing.

HAMMOND on Chancre—(Continued from page 432.)

As to constitutional treatment, it is rarely that any is required. If there is any great debility, iron and quinine may be given with advantage. The bowels should always be kept open, and the diet should be attended to so far as to take care that nothing indigestible is eaten, or excess of any kind committed. Beyond this, no special precautions are necessary. If your patient is in the habit of taking a glass of wine at dinner, there is no reason why he should not continue to do so. In fact, I am satisfied that surgeons who cut off wine, coffee, beefsteaks, cigars, &c., from patients in the habit of using them, do more harm than good.

A patient afflicted with chancre should avoid sexual intercourse. Aside from the dishonesty of the matter, with which, however, it does not come within the scope of these lectures to concern ourselves, connexion is injurious, as tending to produce inflammation, and, perhaps, under certain circumstances, ulceration and phagedena. If there is any tendency towards erotic excitement, lupulin, or, what I have generally found much better, camphor, may be given with advantage.

Of course, the most perfect cleanliness should be practiced. The patient should be instructed to cleanse the chancre frequently during the day with castile soap and water, applied with a sponge. In women with chancres situated within the vagina, a syringe must be used.

I have now, I believe, considered sufficiently the treatment of soft chancres when they run a perfectly regular course. In the next place, the accidents to which they are liable require our attention.

The first of these to be considered is inflammation. This may occur at any period, may have no assignable cause, or may be due to mechanical or medicinal irritation, as has already been stated. Its presence contra-indicates the employment of escharotic or stimulant substances. Emollient applications, such as mucilage or flaxseed, warm water, poultices, &c., are to be used. One of the best and most elegant articles consists of a cataplasm of chamomile flowers. This retains its heat and moisture for a lengthened period, and exerts a very soothing influence over the inflamed tissues. It should be changed frequently. In addition, the most perfect rest in bed should be enjoyed, as moving about not only mechanically irritates the part, but increases the constitutional disturbance. A mild purgative should be given, and then opium in doses of a grain every four or five hours should be administered. In addition, much benefit will be derived from the employment of the tincture of the chloride of iron in large and frequently repeated doses. I have witnessed the most decided results from the use of this substance, especially when there is a tendency to gangrene. I usually give it to the extent of thirty or forty drops four or five times a day.

General blood-letting is, I think, very necessary; and the local abstraction of blood, though sometimes admissible, will seldom be called for. Should it be deemed advisable, a few leeches may be applied to the inflamed tissues in the vicinity of the chancre, taking care that the bites do not become inoculated.

Stimulants are more generally serviceable. When the pulse is frequent, the pain dull, and of an aching character, and the parts livid and unhealthy-looking, much benefit will be derived from the employment of porter, wine, or brandy, in moderately large quantities. In such cases, alcoholic stimulants, with the iron as mentioned, will act like a charm. I have witnessed this too frequently to be mistaken.

Phymosis and paraphymosis may occur as consequences of the inflammatory engorgement.

In the former, beware of endeavoring to retract the prepuce, if any considerable effort is required to effect it, or you may cause paraphymosis, which is much more troublesome. In both, you will find that warm applications and the soothing plan of treatment will generally do all that is necessary. Should gangrene threaten, run a director under the prepuce, and slit it up with the probe-pointed bistoury till the constriction is removed.

In paraphymosis, mild attempts may be made at reduction by compressing the glans gradually and firmly, at the same time pressing the ring of prepuce forward with the index fingers and thumbs of both hands. Should this plan not succeed, and should the constriction be so great as to threaten mortification, the stricture should be divided by running a straight, sharp-pointed bistoury under it, and cutting outwards. If any part remains undivided, it can be cut with the scalpel; after which operation, the chamomile cataplasm should be applied.

If gangrene should occur in spite of all your efforts to prevent it, mildly stimulating applications, such as dilute nitric acid, or the dilute solution of the chloride of zinc, may be employed with advantage. After the inflammation has in a measure subsided, the sloughs, if still adherent, may be removed with a knife. Both in phymosis and paraphymosis, it is the prepuce that generally suffers, and not the glans.

In the next place, ulceration requires consideration, as one of the accidents to which the soft chancre is liable. I have already called your attention to the characteristics of this complication. The management of it requires both patience and skill, but ordinarily is not attended with any great difficulty, unless the form of ulceration be serpiginous, in which case the surgeon may be thwarted for a long time in his efforts to effect a cure.

In ordinary cases of excessive ulceration the sulphuric acid paste is generally the best application that can be used. The specific character of the ulcer is destroyed by it, and a healthy sore left after the detachment of the eschar, which is not so liable as the

chancre to onlarge. At the same time opium given internally to the extent of a grain night and morning, is a useful adjunct. If the sore produced by the escharotic should show a tendency to spread, strapping with adhesive plaster is an excellent means of arresting it, and at the same time a chalybeate with opium should be given.

The serpiginous ulcer is more difficult to cure. Months, and even years, sometimes elapse before permanent reparation is effected. I am disposed to think from what I have seen of such cases, that a scrofulous taint is always present, and certainly the results of the treatment I have adopted for them would seem to support this view. I have tried the sulphuric acid paste in this form, as well as other escharotics, but have almost invariably found that the resulting ulcer was possessed of the same tendency to spread as the original one. Mercury given internally, or applied locally, I have always found to aggravate the morbid condition, although Acton appears to have some confidence in its efficacy.

Arsenic acts better. I have employed it both internally and locally, Fowler's solution for the first, and the arsenious acid for the latter. One grain of the acid rubbed up with one hundred grains of white sugar, and the twentieth part sprinkled over the ulcer every day, and fifteen drops of Fowler's solution taken three times per day, will frequently cause a very favorable change.

But I have derived more satisfaction from the use of iodine than from any other agent. Internally I give it in the form of Lugol's solution, accompanying it with some preparation of iron, and occasionally with cod-liver oil, whilst at the same time I apply the strong saturated tincture to the ulcer and neighboring parts every day. I have never seen a case resist this treatment. I am therefore anxious to impress its advantages upon you, for these serpiginous chancres are very annoying things both to patient and surgeon. I am sorry there is not a case now in the house, for I should like to make you acquainted with its features, and also with the method of treatment I have mentioned, by ocular demonstration. In practice you are not likely to meet with many instances. During the last thirteen years I have treated twenty-two cases, but then I have had all kinds of people to deal with, and for a part of the time mentioned resided in localities where venereal diseases were more frequent than any other. However, I shall have opportunities of bringing this form of complication before you ere long, and in the meantime will relate to you the details of a case which a few years since came under my charge.

J. T. contracted a chancre on the prepuce, for which he was treated by the local application of the nitrate of silver, and the internal administration of the protiodide of mercury. The chancre continued to enlarge, and the nitrate of silver was changed for sulphate of copper, and at length strong acetic acid was employed.

The gums became sore from the mercury, which was then stopped, and the iodide of potassium substituted. Not getting any better, he applied to me.

I found on the prepuce a chancre extending from the frænum to the scrotum, and about half an inch in width. Its original position had been fully an inch to the right, and it had gradually reached its present location, at the same time having trebled in length during the past six months. It was not straight but wavy. There was but little appearance of inflammation about it. The base of it was hard from medication, and the floor of a dirty grey color. The amount of discharge from it was not great, neither was there any bad smell about it. Inoculation gave a negative result. Notwithstanding the size of the sore, I applied the undiluted nitric acid freely to it. In a few days an extensive slough was detached. The ulcer looked healthy, and I flattered myself it was about to cicatrize. I was, however, mistaken. It did heal on one side, but advanced on the other until it had assumed a horse-shoe form. During all this time the patient was taking the bi-chloride of mercury in doses of one-sixteenth of a grain three times per day. This was continued till his system was fully under its influence, when, it being very evident that no good result was to be obtained from its use, I discontinued it.

The patient had now been over three months under my charge, and was no better than before he came to me. The ulcer had now entirely surrounded his penis, being still the shape of an elongated horse-shoe. I now ascertained, what I ought to have found out before, that the patient's family were scrofulous; a brother and two sisters having enlarged lymphatic glands in the neck, and his mother having extensive cicatrices in the same situation. I therefore determined to try the efficacy of iodine in his case, and therefore administered Lugol's solution, and applied the strong tincture of iodine to the ulcer; at the same time, full diet and porter were directed. Within a week the signs of amendment were evident. The arms of the horse-shoe became much smaller, whilst the arched portion ceased to extend. Then it commenced to cicatrize at both places, and in almost six weeks had entirely healed. For a year afterwards, at least, he was in perfectly good health. I then lost sight of him, but have no doubt that he remained cured.

I have a case of serpiginous chancre now under my charge, in which for the last two years all the ordinary methods of treatment have been tried without effect. It occupies the left side of the glands, and is of semicircular shape. Although the patient has only been under the iodine treatment for twelve days, he has already commenced to improve, and the chancre is healing from the entire circumference. In his case I am also using cod-liver oil and iron, for the reason that he was pretty well broken down in constitution.

You are not, however, to suppose that all cases are as amenable to treatment as those I have cited. I have, however, as has been mentioned, never treated a case of serpiginous chancre ineffectually with iodine. Sooner or later the patient gets well, but it may be four or five months before this desirable result is attained. You should therefore persevere with the treatment I have recommended.

In the next lecture I shall consider the treatment of phagedena and of the bubos produced by the soft chancre.

(To be continued.)

The Right Man for the Right Place.

The war of the Crimea taught the British Government a lesson of great and permanent value. It saw one of its best equipped, most thoroughly provisioned, and apparently most formidable armies, gradually brought into a state of comparative inefficiency, and almost helplessness, through a series of blunders the result of official incompetency. The troops, half clothed, perished with cold, while ship-loads of warm clothing were within their sight; they toiled incessantly in snow and frost, half-famished, while the luxuries of living filled the commissariat; they perished of fever, dysentery, and cholera, in unprovided hospitals, without medical treatment, while hospital stores crowded the apothecary's department. The heart of the English people was touched by the tales of suffering, misery and death, which came from their friends and brethren, and soon was heard the cry of popular indignation from one end of the realm to the other, and the imperious demand: THE RIGHT MAN FOR THE RIGHT PLACE!

If the British Government, with all its experience, could commit so grave a mistake as to instal unqualified persons in high or responsible positions in the perilous times of war, how infinitely greater is our danger of falling into this irremediable error? Our General and State Governments are profoundly ignorant of the art of war; they know nothing of its exigencies, its requirements, its laws or its spirit. The former has for years had but a handful of half-famished troops on its borders, guarding the settler from the attacks of savages; hundreds of half finished fortifications falling to decay, for lack of interest in their completion; and a school for military training, the educational nursling of the sons of a few Congressmen; while the latter have allowed their military laws to become a dead letter, or have abolished them altogether. Among the people at large the sword has literally been beaten into the ploughshare, and the spear into the pruning-hook; and their entire devotion to the arts of peace, and of a Christian civilization, might have been taken as a proof that they would learn war no more.

But suddenly the General Government summons from the States a vast army, and demands its immediate rendezvous at the National Capital; the State Governments respond with alacrity, and here our short-comings first appear. The State military offices have been filled without regard to the qualifications of the candidates. Too often the incumbent has not only been utterly ignorant of his duties during his entire term, but what is especially to be deplored, incompetent to their proper fulfillment, should the emergency occur. The general complaint that now reaches us from every encampment proves but too conclusively the truth of our remarks. The military spirit of the people being aroused, the supply of troops greatly exceeds the demand. The preparation of the outfits of this army opens a vast system of stock-jobbing, which is eagerly welcomed by the thousands who are ready to "turn a penny" by any new adventure. The weak and imbecile officials readily become the tools of designing men, and exercise the functions of their office without discretion, or for mercenary purposes. As a consequence, the troops have been clothed with garments that would shame a convict, and have been entertained with food that rendered their summons to mess more to be dreaded than an order to prepare for battle.

With such a class of officers to commence the work of organizing this immense army, it is not strange that many of the most important positions have been filled by men wholly unfit for the stations to which they have attained. At every place of rendezvous this fact is apparent on the most superficial examination, and at length it has been exhibited on the field of conflict. If these fatal errors in our army organization are not remedied in time, disasters will be multiplied, and ultimate defeat is not an improbability. But it augurs well for the intelligence of our people, and the final success of our Government, that these defects are already noticed, and are eliciting the watchword of reform—**THE RIGHT MAN FOR THE RIGHT PLACE.**

The pertinent inquiry will arise in the mind of every patriotic physician, who has also the honor of his profession at heart—Is the medical profession of the loyal States properly represented in this great uprising of the people for the maintenance of our national Government? The simple truth is, the medical profession has as yet not a proper representation or influence in this movement. Medical men wholly unqualified for their positions have, unfortunately, too often been already installed in important offices, from which emanate other appointments of the same low grade of qualification. In one State the question was asked by a leading paper, Who is our Surgeon-General? He was at length found, and proved to be a quack! It is not doubtful what will be the character of his subordinate officers. In another State, a surgeon, the brightest ornament of his profession, and who has a national reputation as an author, desiring to contribute his part

to the good cause, early applied to the Surgeon-General of the State where he resided for the position of Medical Inspector at one of the rendezvous. He was, however, informed, by a communication from the Surgeon-General, that *no such office existed*. A few days after, the official bulletin announced the appointment, as MEDICAL INSPECTOR, at the very same rendezvous, and by the same Surgeon-General, of a man of universally acknowledged incompetency. This fact has since been proved by the re-inspection ordered by the military authorities at Washington, of the troops which he had passed, and the discharge of large numbers as unfit for the service.

The State Boards of Medical Examiners have proved, in many instances, either negligent, or culpably ignorant of their duties. We may estimate by hundreds the number of unqualified persons who have received the endorsement of these bodies as capable Surgeons and Assistant-Surgeons to regiments. Indeed, these examinations have in some cases been so conducted as to prove the merest farce. Irregular practitioners, "retired physicians," disabled "political doctors," physicians unable to obtain a livelihood in civil practice from sheer incapacity, have emerged from the "Green Room" full fledged Army Surgeons. The result of this official ignorance is now apparent; the Secretary of War has recently called the attention of the Surgeon-General of the United States to the reported incapacity of regimental surgeons of the Volunteer forces at Washington, and directed a re-examination, with a view to the dismissal of those found incompetent.

In the present number will be found the Plan of Organization of the Sanitary Commission, with the names of the members. A more important commission never was organized in this country, and it reflects most creditably upon the intelligence of our highest authorities, and their disinterested zeal in behalf of the welfare of our citizen soldiers. The investigations which the commission proposes to pursue, and the defects which it will aim to remedy, are of vital interest to the army, and involve, to a certain extent, the final issue of the struggle. The medical profession have a deep interest in the success of this commission, for it is in its incipency, its duties, and its construction, a medical commission. It is, we believe, the first instance in which our Government has recognized a body as advisory in matters of a sanitary and purely medical character, independently of the medical department of the army. Our profession would gladly see this organization a permanent one. But its success depends upon the efficiency of the individual members of the commission. Distinguished as are the members of this body, and competent as they are to cope with the responsible duties which they have patriotically assumed, the medical profession will regret that the chivalrous State of Rhode Island could not have been represented by her distinguished Sanitarian, Dr. Edwin M. Snow; that New York could not add to its

councils the knowledge of its wisest public Hygienist, Dr. John H. Griscom ; and that Pennsylvania could not contribute the ripe experience of its practical Health Officer, Dr. Wilson Jewell. The names of many other gentlemen suggest themselves, whose life-long studies have eminently fitted them for the researches of this commission.

But we forbear to pursue this subject further. We have made these remarks in no captious or fault-finding spirit, but with a strong desire to see errors corrected, and evils removed, which if allowed will in the end prove dangerous if not disastrous. Especially do we desire to see the medical department of the volunteer army elevated above the low level of partisanship and favoritism. We trust that the re-examination of the regimental surgeons at the Seat of Government will be rigid, and that the service will be thoroughly sifted of its unqualified medical officers. Let the popular feeling, which demands that incompetent commissioned officers of the line shall retire, or fall back into the ranks, be extended to the medical department, in all its branches, whether State or National. Let the motto of both Government and people in this struggle be—THE RIGHT MAN FOR THE RIGHT PLACE!!—*American Med. Times.*

An Experiment with Kerosolene—A New Anæsthetic. By
E. ANDREWS, M.D., *Professor of Surgery in Lind University.*

This fluid is a hydrocarbon of the series obtained by distillation of bituminous coal. It appears to be the most volatile of its class, having less specific gravity than ether, and seeming to be about equally volatile. The odor is but slight, and in kind resembles that of other coal oils. Dr. Bigelow, of Boston, states that it is "tasteless as water," but this is an error, as it has a distinct, though not strong flavor. On the whole it is much less pungent, both to taste and smell, than chloroform and ether.

It has been my opinion for some years that all the volatile hydrocarbons were anæsthetics, including coal gas, which latter I have proved by experiment.

The anæsthetic qualities of kerosolene were first observed in a kerosolene factory, where it was noticed that men who were sent down into the vats became narcotized by the inhaled vapor, and on removal to fresh air recovered without injury. As the kerosolene is the most volatile of the compounds present in these oils, it was presumed to be the chief anæsthetic agent present, and was selected for experiment.

On the 19th of July, Dr. Dickinson, of St. Louis, called upon me and presented a can of the fluid, with a request that it might be tested. As there happened to be present at the moment a pa-

tient of the Chicago Dispensary, to be sounded for stone in the bladder, I determined to try the article at once. Accordingly, the patient was laid upon a sofa, and at my request, Dr. Dickinson commenced the administration. It was given by sprinkling upon a handkerchief in the same manner as chloroform, taking care to secure an abundant access of air. The patient seemed to take it with ease and comfort, and for several minutes everything went on well. The pulse was full, and somewhat accelerated, but it did not intermit or flag in any part of the procedure. At length the anæsthesia began to come on, when the countenance appeared flushed, and the eye a little unnaturally open and staring. In a short time the patient made an effort to rise up in a sitting posture, and was immediately attacked with moderate convulsions. The administration was discontinued until these effects subsided, and then carefully resumed, but the result was another attack of the convulsions. Again, suspending the inhalation until the muscular excitement ceased, a third effort was made to proceed, but this was also checked by a third attack of the spasms. Great as was my desire to test the article, I did not deem it prudent to persist in the face of such warnings, therefore laying aside the kerosolene, the anæsthesia was finished with a mixture of ether and chloroform. No further convulsive motions occurred. Both the pulse and the respiration were well sustained during the inhalation of the kerosolene, the only exception being that during the convulsions a moderate check of respiratory movement occurred, in consequence of the rigid contraction of the muscles of the chest. The result was a momentary dusky redness of the face at each convulsion, similar to that which occurs in epilepsy.

On the whole, the symptoms were alarming but not disastrous. If this shall be found a frequent result, it will effectually exclude the article from use.

Dr. H. J. Bigelow, of Boston, has experimented once upon himself, and four times upon others, with this fluid. In his own case its action was all that could be desired, but in all the other instances unpleasant effects occurred, such as failure of respiration, intermittent pulse, and muscular rigidity. I make an extract from his communication to the *Boston Medical and Surgical Journal*:

This fluid presents remarkable properties. It is tasteless as water, volatile and inflammable as ether, though burning with a dense white light; of a faint chloroform odor, which, as it evaporates, changes to that of coal tar, and then disappears absolutely and altogether; so that a handkerchief, saturated with the fluid has, at the end of a few minutes, when dry, no odor at all, nor has the room or atmosphere were it has been used, any trace of its presence. Both ether and chloroform leave, in different degrees, a persistent, *fadé* and stale aroma after evaporation, as is well known. They are also far less agreeable to inhale than this

new agent, which has thus an obvious advantage over either of them.

A few whiffs were sufficient assurance of its efficacy as an anæsthetic, which, with its other qualities, as I ventured to remark, would place the kerosolene beyond any known anæsthetic, provided its use was not followed by headache, vertigo or other unpleasant symptoms, and provided it should prove as free from danger as ether.

Subsequently, I inhaled the new vapor, which Dr. Hodges, at my request, administered. Complete insensibility supervened, lasting several minutes, with some diminution of the volume of the pulse. Its effect was wholly agreeable, leaving neither headache nor nausea, nor bad taste.

I have this morning administered it to three surgical patients. The first, a girl of 19, presenting some hysteric tendencies, having thrust some twenty needles in her leg, was wholly insensible during the extraction of four of those which remained. Yet there was more cough than I had expected from the wholly unirritating odor of the vapor, more muscular rigor than usual in favorable anæsthesia, and more intermittence of the pulse.

In a second patient, to whom it was given preparatory to an operation upon the face, insensibility was equally complete. But this woman did not take it kindly, and its complete effect was attended by so feeble and intermittent a pulse as to lead me to desist until she had recovered. A second attempt reproduced, with anæsthesia, the feeble and intermittent pulse, and I again desisted. Upon her recovery, I gave her common ether vapor, which she afterwards said was less agreeable, but which was followed by complete insensibility, the pulse beating steadily and full at 76. Though this patient perhaps succumbed more readily to a third anæsthesia, there seemed to be in the first two trials a certain degree of purple color and asphyxia, with its attendant spasm, which I have elsewhere described as an occasional and disagreeable symptom of anæsthesia. To guard against this asphyxia, which might possibly have resulted from the folded towel, upon which I habitually administer ether, I tried in the next case an open sponge. The subject required a considerable incision for a mammary abscess, and was a patient of Dr. H. G. Clark, with whose assent I tried the kerosolene. In spite of the open sponge, the symptoms of asphyxia again appeared, suggesting to Dr. Clark before operating, their resemblance to those resulting from charcoal gas. The color was livid, and the rigidity marked. In each of these cases, the quantity used was from one to two ounces.

In conclusion, it may be remarked of these three cases, that they are insufficient for satisfactory demonstration, and that their common and unfavorable symptoms may well have been but a coincidence; yet they suggest some caution in the use of the kerosolene vapor. It is probably more potent than that of ether, re-

quires a free admixture of air, and may produce upon the system some impression or influence other than that of the mere intoxication attendant upon the use of ether. In awaiting further evidence, it may be considered established that kerosolene is an anæsthetic of undoubted efficiency, and that it possesses certain remarkable and attractive properties peculiar to itself.—*Chicago Examiner.*

PART IV.

EDITORIAL.

ST. LOUIS MEDICAL COLLEGE.

The regular winter course of lectures in the St. Louis Medical College will commence, as usual, on the first of November.

Owing to the disturbed state of the country, the preliminary course in October will be omitted this year.

It is to be hoped that before the first of November the restrictions which are now thrown around our city by the existence of martial law will be removed, so that those who wish to come and go may do so without let or hindrance.

BUFFALO MEDICAL AND SURGICAL JOURNAL AND REPORTER.

Amid the demise of so many medical journals, it is refreshing to chronicle the appearance of a new enterprise of this kind, bearing the above name, and of course published at Buffalo, N. Y. It is edited by Julius F. Miner, M.D., Surgeon of the Buffalo General Hospital, contains thirty-two pages, and is to be issued monthly, at one dollar a year in advance.

The courage required to start such an enterprise, at such a time, will, no doubt, prove adequate to its complete success.

DEATH OF DR. U. H. BILLINGSLEA.

At a special meeting of the St. Louis Medical Society, held on Saturday evening, the 20th inst., Dr. M. M. Pallen, President, in the chair, and Dr. Kennard, acting as Secretary;

Dr. Brokan said it was his painful duty to announce the death of our late friend and professional brother, Dr. U. H. Billingslea, who died in this city this morning at 2:30, A. M. He moved that a committee be appointed to draft suitable resolutions in reference

to his decease. The President appointed Drs. Brokau, Kennard and Newman, who reported the following preamble and resolutions:

Whereas, God in his inscrutable wisdom has suddenly removed from our midst our dear friend and professional brother, Dr. U. H. Billingslea, a highly esteemed member of the St. Louis Medical Society; therefore,

Resolved, That whilst we bow in willing submission to the decree of an All-wise Providence, we sorrow at the loss of one possessed of every attribute which characterizes the noble man and true physician.

Resolved, That in his death this Society has lost one of its most respected, worthy and promising members; we a most noble, warm-hearted and self-sacrificing friend, and the city an able and beneficent practitioner.

Resolved, That, although but a few years a resident of St. Louis, he had won the universal respect and admiration of his professional brethren, the unalterable love of his friends, and the sincere attachment of all who knew him, and, had God in his goodness have spared him, we believe his career would have been as brilliant and useful as so auspicious a beginning could have made us anticipate.

Resolved, That through life he endeavored to act such a part as the high-minded and honorable would admire, and the envious dare not censure, and died as he had lived, a true Christian.

That whilst no human power can fill the aching void caused by his sorrowful death, we deeply sympathize with the bereaved father and family, and assure them that, though far from those nearest and dearest, he received every attention and kindness which true friends could bestow.

That the members of this Society attend his funeral in a body and wear the usual badge of mourning.

That the proceedings of this meeting be published in the St. Louis *Medical Journal* and the daily city papers, and a copy be sent to his family.

Mr. Haslett remarked:

Mr. CHAIRMAN: I cannot, on this sad occasion, refrain from mingling my voice with others in sympathy and heartfelt sorrow at the death of U. H. Billingslea. I have known him intimately and well ever since he first settled in St. Louis. He came here at the same time that I did, near five years ago, and before he had taken an office or selected a location to practice his profession, I was fortunate enough to make his acquaintance. That acquaintance ripened into an enduring friendship, a respect and confidence, which could only be broken or annulled with death itself.

I speak of him, therefore, as I knew him—true, tried and

trusted, as a friend ; courteous, high-toned and honorable, as a physician ; brave, noble and generous, as a man. I have seldom known a man for whom I had greater love and respect, or one whose character I more admired. He was one of nature's noblemen, born a gentleman, which education and extensive culture in his profession and literature embellished and adorned. He could not, therefore, do a mean or dishonorable act, or have any respect for a person who did ; and, although of such a positive character, I do not believe he has an enemy in the world. Modest and unassuming, courteous and gentlemanly in his intercourse with all, "none knew him but to love him, none named him but to praise."

Dr. Billingslea was well read in his profession, and amply fitted by nature and habit to succeed in practice. His character was thoroughly established as an attentive, steady, and well qualified physician—enjoying the confidence of his patrons and the respect of the community, and especially his professional brethren.

That one so young and so beloved by all should be struck down in the very beginning of manhood—at the very threshold of an unexampled career of usefulness and prosperity, and far away from home and its endearments, his parents, and family, and early friends, is one of the inscrutable dispensations of Providence to which all must bow in meekness and humility. Truly, "in the midst of life, we are in death."

Dr. McPheeters said he was greatly shocked to hear of the sudden death of our late friend, and could endorse every sentiment expressed in the resolutions read, and the remarks made by Dr. Haslett. It was, indeed, sad that one so promising and so beloved should be cut down in the morning of life and beginning of usefulness. Dr. Billingslea always showed himself to be a modest, refined and gentlemanly person, one well calculated to win his way in any community. Even in these troublesome times, when life is so little valued, and death seems to have so few horrors, it is sad to miss one so bright and promising. I was indeed glad to hear that he was a true Christian—for the most and best that can be said of any one is that he was a true man and good Christian—it will go farther to mitigate the sorrow of his friends than aught else.

The President appointed Dr. Kennard to prepare a memoir of the deceased. The Society then adjourned.

DEATH OF DR. O. B. GREGORY.

We regret to announce the death of Dr. Otway B. Gregory of this city, which sad event took place on the 6th of September, from phthisis pulmonalis, in the 24th year of his age. Dr. Gregory was a native of Kentucky, but has resided in this State for a long time. He graduated with distinction in the St. Louis Medical College some five or six years ago, since which time he has labored under the disease of which he died. He was a young gentleman of fine talents, and had he lived, would unquestionably have distinguished himself in his profession.

MEDICAL MISCELLANY.

Release of Medical Prisoners.—From the same journal we extract the following: "The following Surgeons taken prisoners at the battle of Bull Run have been released on parole, and sent within our lines via Norfolk, Va.: Edward J. Taylor, N. J.; Jacob A. Stewart, Min.; Eugene Puenquet, Foster Swift, Gustavus Maston, Charles DeGraw, — Norval, N. Y.; S. C. Thunkins, B. F. Buckstone, W. H. Allen, Maine; James M. Lewis, Wis. They report themselves as having been kindly and courteously treated by the confederate authorities, and give a most unqualified denial to the stories of the killing or ill-treatment of the wounded."

Of course the confederate authorities treat with all kindness and humanity the wounded of the enemy who fall into their hands, as well as their prisoners. Brave men, as they are, are never cruel. It is only cowardly marauders who, in passing through an enemy's country, burn houses and insult women, that flee before an armed foe, and inhumanly treat those who fall into their hands.

Thoughtful Beneficence.—The Berkshire Medical Journal says: The late Nathaniel I. Bowditch, Esq., made in his will the following bequest:—"I give to Mass. General Hospital \$5,000, as a fund to be called the Wooden Leg Fund, the income to be applied towards defraying the expenses of wooden legs for patients who have been obliged to submit to amputation. In the distribution of this income, I should desire that female patients should be preferred to males, and young patients to old ones."

Surgeon Killed at the Battle of Bull Run.—Dr. Alfred Powell, Surgeon of the Second N. Y. regiment, was killed on the field while attending to the wounded under his care. He died in the heroic discharge of his duty and is worthy of all honor.

THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL.

VOL. XIX.

NOVEMBER, 1861.

No. 6.

PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

*Memoir of Dr. Billingslea: Prepared by the order of the
St. Louis Medical Society.*

Mr. PRESIDENT :

At the meeting of this Society upon the occasion of the death of Dr. Billingslea, Dr. Kennard was appointed to prepare a memoir of its lamented member. Upon my return to the city a few days afterwards, Dr. Kennard proposed to transfer that sad duty to me on account of my longer and more intimate acquaintance with our deceased associate and friend. This transfer I accepted, believing that it would receive the approbation of the Society.

J. H. WATERS.

Uriah Haines Billingslea, M.D., the eldest son of Dr. James L. Billingslea, was born in Uniontown, Carroll County, Maryland, May 24th, 1836. At an early age he was sent to school at the Academy of his native town, at that time in charge of Mr. Samuel A. Lauver. He remained a pupil of this school until he removed with his parents to Baltimore in 1848. They remained in the city, however, only about a year, when they

removed to their farm in Baltimore Co. Now, for the first time, he was sent from home to school, to Milton Academy in the same county, of which John E. Lamb was principal. Here he remained until he completed his literary education. He was an excellent English scholar, and quite proficient in Latin, French, and Mathematics. His education was mainly directed to a qualification for mercantile pursuits, as it was his early intention, and the desire also of his parents, that he should seek his vocation in that line of business. But being unable to obtain a situation in Baltimore upon leaving school, and being discouraged by the gloomy pictures of mercantile life drawn by those whom he consulted, he returned home, and in a short time determined to study medicine. Accordingly, he at once commenced reading under the supervision of his father, and, after attending three courses of lectures in the University of Maryland, he received the degree of Doctor of Medicine in the spring of 1857. In the following June, he settled in St. Louis, and remained here practicing his profession to the time of his death, July 20th, 1861.

Called from earth so young, Dr. Billingslea had as yet an opportunity of being known only by his friends and personal acquaintances. The twenty-five years that he lived had been a time of preparation,—a preparation to live a life of usefulness on earth, if permitted, or of happiness in heaven. Time was not allowed him for his inner life and nature to find expression in deeds of interest to strangers and the world. But the deeds of the greatest and most renowned are of interest as recorded in their memoirs, only as indices to that inner life, in itself yet unseen, but immortal. And if what are called the little affairs of every day life point out a noble soul, that one is no less worthy our esteem, and his memory, our reverence, than though his life were marked by the deeds of three score years and ten.

The fact that this Society has directed his memoir to be written, is probably the best record of the manner he was esteemed by the profession in St. Louis. He came here, four years ago, a stranger;—altogether without external influence to promote his advancement. He quietly took an office on Morgan street near Sixth, and I may safely say, that, before his death, no one so young in the profession had so bright a prospect. Very soon after his arrival here he joined this Society, and soon became one of

its most active and valuable members. He honorably filled the position as its Secretary for one year, and you will bear witness that in every position he took here, he acted in a manner alike creditable to himself and to this Society. It was but seldom he entered into the discussions upon general subjects introduced here, yet when he did, his remarks were always pertinent and his judgment such as to command attention.

Dr. Billingslea secured the confidence of all with whom he was brought in contact. He was a man of decided character, and, though always prudent, no slavish policy prevented the expression of his views and opinions when occasion seemed to require. Even those with whom he differed could but respect him the more for his manifest sincerity and truthfulness. No one seemed to fail to perceive that his words and deeds were the real expressions of his true character. Hence such general confidence. It was his ambition to be what he would seem. True, he was strictly attentive to his business and desired to succeed in temporal affairs, but with him all this was included under the higher aspiration to deserve success.

His life teaches us that he who is a living truth and in harmony with himself, will have all that is living and true in harmony with him; in other words, that he who seeks *first* the kingdom of God and his righteousness, shall have "all these things" added: his early death teaches us how valueless and dead "all these things" are in themselves,—that they have a value only as comprehended in or subsumed under a higher, holier life.

ARTICLE II.

Fatal Case of Diphtheria with Post Mortem Examination.

By J. M. YOUNGBLOOD, M.D., of Oregon Co., Mo.

The following case may possibly be of some interest in a pathological point of view to the readers of your very excellent Medical Journal.

Mrs. S. N—, æt. 25, the mother of three children, was attacked on the 28th of April, 1861, with diphtheria. At 4 o'clock P. M., of same day, I saw her; her skin was hot and dry; pulse small and

quick (186); tongue coated dark-yellow; mouth very dry, quite thirsty; bowels inclined to constipation; some swelling and pain about the neck and throat. The mouth could not, without great pain, be opened sufficiently wide to make any examination whatever of the fauces. The swelling about the throat was very painful, the slightest manipulation elicited severe pain. There was at this time some difficulty in breathing. The patient being of a jaundiced appearance, and bowels confined, I thought the following would be proper for the time being: *R*.—Calomel, grs. x.; Pulv. Doveri, grs. v., to be followed by castor oil—had her throat bathed with turpentine. During this time she seemed to take no notice of what was being done, but was exceedingly restless, tossing her arms and removing the bed-clothes, and could, with great difficulty, be induced to answer any question.

April 29th, 8 o'clock A. M. Saw her again, found her manifesting great uneasiness, and symptoms of extreme oppression about the chest, and difficulty of breathing.

April 29th, 8 o'clock P. M. Found her struggling with death—soon expired.

Post-mortem.—Twenty-four hours after death, skin purplish and mottled—a good deal of adipose matter found; pericardium and heart healthy; some adhesions of the pleura to the walls of the thorax: lungs congested; right lung principally affected; on the surface of the lungs there was, in spots or small spaces, a peculiar whitish exudation or false membrane, which, at the time the post-mortem was made, was easily broken up with a scalpel, and heaped into a homogeneous mass; liver enlarged and softened, could very easily pass a finger into it; gall bladder full of bile, the parts near it were stained yellowish with the bilious matter; spleen very much enlarged, was in fact, as large as the liver; intestines much distended with gaseous matter, but otherwise healthy.

DISCOVERY OF GUTTA-PERCHA.

The discovery of this important material is attributed to a physician—Dr. Montgomery—whose attention was drawn to it while travelling among the Malays.

ARTICLE III.

Lamentable Ignorance of Anatomy on the part of many Practitioners—Cause and Cure. By AMOS SAWYER, M.D., of Hillsboro, Illinois.

WM. M. McPHEETERS, M.D.—*Dear Sir:*

Why is it that so many practitioners who have received the endorsements of respectable medical schools as physicians and surgeons, have upon re-examination by the medical examiners of the army proved incompetent? I think I can account for some of this professional ignorance in this way. Our medical instructors do not attach enough importance to the study of anatomy; and therefore the student as a general thing has but a very imperfect knowledge of this branch of medicine; because, to become thorough anatomists we must dissect; and it is a well known fact that many students take the ticket who never touch the knife to the dead body; they will join a class and be seen in the room for a few nights, and that is all; for they are well aware they can procure a diploma as easily as those who dissect every night. They cannot realize the truth of Ballies' assertion, "that the dead body is that great basis on which we are to build the knowledge that is to guide us in distributing life and health to our fellow-creatures."

What can better illustrate the importance attached to this branch of medicine than the case of Ferre Jacques; without any knowledge of anatomy he operated in lithotomy; he relied upon a firm hand and true courage, and, such was his success when compared with those who operated with the apparatus-major that his popularity was at first great; but in consequence of many deaths it became seriously affected; of 45 patients in the Hotel Dieu, only 10 survived; of 190 in the Hospital La Charité, 11 survived. To avoid so many casualties, he operated upon dead bodies; and under the instruction of Isu Vernez, a celebrated anatomist, learned anatomy thoroughly. Now, mark the result: after he became acquainted with the dangers connected with the operation, he cut 38 persons at Versailles, and all survived; 16 at Strasburg, and one only, an old man, died; and his success was equally as great everywhere.

I know it will be urged that we now have correct anatomical plates, and all the student need do is to consult them. But I would ask, do they educate engineers in this way? Would any one who owned a steamer, trust the working of her to one who had never seen an engine, but who professed the ability to work one from the fact that he had studied drawings perfectly? They would answer, you must first study under the eye of an experienced engineer; become familiar with, and handle every part of the machine, before I can trust you. So it is just as important that the Physician (Engineer) should become familiar with, and handle every part of the human body (engine), before he should be trusted. Had the examining committees issued certificates to engineers as recklessly as the medical examiners have diplomas to students, they would have "blown up" our steamers faster than they could have been replaced. Sometime ago, an M.D. of this place was asked by a lawyer where the pancreas was situated; he promptly answered, there was nothing by that name in the human body. The legal gentleman informed me, that from the very moment the Dr. made this blunder he lost all confidence in him. This is one of the reasons why homœopathy and kindred quackeries are so popular at this day.

We need a system of medical education that will require more time from the student; as it is undeniable that what is soon learned, is generally as soon forgotten. Students can receive a diploma in this country in half the time they could in Europe; and any system of education which pretends to accomplish pupils in half the usual time, is a gross imposition, and contrary to the law of human nature. Then let the medical student's education be such that he is carried a step beyond mere elementary knowledge. I would suggest that the student be compelled to dissect at least six subjects, and that the demonstrator give him a ticket when he has complied; and unless he present said ticket with his thesis he be rejected. As Latin has been termed the key to all languages, so may anatomy be termed the key to all the other branches of medicine.

I address this to you, Dr., because I know you used to be in favor of a more strict examination in the "Green Room;" and as you occupy the influential position of editor of a medical journal, and professor in one of the best medical colleges in the country,

why cannot you give us an editorial on this subject in the next number of the Journal? I think it would do much towards causing a reform. I wish I could do justice to the subject, but as I cannot, will leave it for others.

ARTICLE IV.

Anthrax followed by Œdematous Laryngitis and Death.

By C. H. HUGHES, M.D., of Warrenton, Mo.

MESSRS. EDITORS :

It never having been my fortune to witness in my own practice, or to find recorded among the annals of medical science, a case similar to the present one, I have thought that its history might merit a perusal at the hands of some, at least, of your numerous readers, and prove as interesting to them, and perhaps as instructive, as it has been to myself. I have, therefore, been induced to request permission of my friend, Doctor C. G. Strother of this place, (in whose practice the case recently occurred,) to make it public to the profession, through the medium of your columns.

Its anomalous character, alone, and not any desire to offer suggestions to the profession concerning the proper plan of treatment to be adopted in such cases, nor disposition to indulge in fanciful speculation concerning any probable connection between erysipelatous and carbuncular inflammation, has induced the writer to request permission to place this case on record in the columns of your valuable journal.

Speculation concerning any relationship which may exist between the inflammation of carbuncle and erysipelas, he prefers to postpone until more cases like the present shall have been recorded or fallen under his observation, and suggestions concerning the proper plan of treatment to be pursued in particular cases are more appropriate when accompanied with successful results.

The facts of the case, as related to me by Dr. S., are substantially the following. Before proceeding to relate them, however, it is proper to remark, that the Doctor would himself have furnished you, from his own pen, with a more perfect history of the

case than the one I am about to indite, were it not that, the pressing duties of his profession just now wholly engross his attention.

Case.—On Thursday, the 23d day of October, called to see Judge J. A. P., an old and much esteemed citizen of Warrenton. The patient's age was 58, and his habit of body corpulent. He supposed himself to be suffering from a simple furuncle on the nape of the neck; but the flattened circular shape of the tumor, its dusky red hue, finally becoming purple and undermined with pulpy ash-colored sloughs, prove the error of our patient's diagnosis, and established the case beyond a doubt as one more serious—malignant carbuncle. The patient, though before unaccustomed to disease of any kind, and, as we have already said, exceedingly corpulent, nevertheless gave evidence of the possession of that constitutional vice which carbuncle betokens, and which, in turn, is indicative of that affection. The sallow complexion, the loose skin, the flabby flesh, were all present. But one circumstance, contra-indicative of debility existed, and that connected with the pulse, which though rapid, as is usual, both in carbuncle and in erysipelas, was exceedingly unyielding to the touch, until after venesection, which was deemed advisable to relieve the tendency towards cerebral inflammation, manifest in the early stage of the disease. After venesection, the pulse softened temporarily, but soon became as unyielding as before and continuing thus until the termination of the case. The abstracted blood when first drawn was unusually thickened and devoid of its watery element. This condition of the blood will probably account, in part, for the unyielding character of the pulse whilst all the other symptoms point to asthenia.

The habits of the patient were such as to predispose to general debility. A "full liver," he exercised but little, and, for many months previous to his illness, had devoted himself to reading late at night, and during the day, to the constant cares of business, the effects of which soon became manifest in a great diminution of his former obesity.

The early treatment consisted in the administration of such constitutional remedies as is usual in carbuncle—iron, quinine, nutrient soups, and brandy; and locally, free crucial incisions through the whole extent of the swelling, followed by poultices of flaxseed, etc. This plan of treatment was adhered to until the

existence of erysipelas became apparent, extending anteriorly around the neck from the seat of the carbuncle, when to the local treatment was added paintings of white lead and iodine, and to the constitutional treatment was added the internal exhibition of chlorate of potassa, in sixteen grain doses every three hours. Occasional cathartics, also, were not neglected.

The erysipelas did not involve the scalp, but kept on extending until the neck and part of the face as high up as the nose became implicated. Simultaneously with the extension of the inflammation to the face, a soreness of the throat, with difficult and painful deglutition was complained of, which, upon examination, was found to proceed from the involvement of the fauces in the specific inflammation, as evinced by their bright scarlet color and the thickening and swelling of the soft palate and uvula. No sloughing occurred in the fauces, but the inflammation speedily extended itself to the larynx. Difficulty of breathing soon came on, with great tenderness under the angles of the jaw and about the larynx. His voice, scarcely at all husky at the invasion of the disease, finally became inaudible, and the difficulty of breathing rapidly increasing, he was suddenly carried off in a fit of dyspnoea within forty-eight hours from the commencement of the laryngeal affection, while preparation was being made for the performance of laryngotomy. It may be well before concluding to state that during the whole attack there was an almost, if not an entire, absence of cough in this case, a circumstance extremely unusual in erysipelatous laryngitis.

PART II.

REVIEWS AND BIBLIOGRAPHS.

ARTICLE I.

Theory and Practice of the Movement Cure. By CHARLES FAYETTE TAYLOR, M.D. *Lindsay & Blakiston: Philadelphia.* 1861.

Well educated, regular physicians are very naturally and justly prejudiced against men who claim to cure all diseases by one

method, and are likely to ignore every new system without examining thoroughly its merits. We should not, however, allow our incredulity to prevent us studying any and everything which may aid us in alleviating suffering, or testing any method, which, if not beneficial, we certainly know to be harmless. Every one acquainted with the most elementary principles of human physiology knows very well that adequate exercise is one of the essentials to health, and any method for supplying or properly regulating this stimulus must prove of great assistance in the treatment of a large class of chronic diseases. Such is what is claimed to be done by the advocates of "Kinesipathy" or Movement Cure, a system of gymnastics, or localized movements, intended to put in practice certain physiological principles for correcting derangements, caused by a want of proper exercise of any organ or of the whole human system. This mode of curing disease, though always practiced as an auxiliary to other treatment in certain cases, was first systematized by Peter Henrik Lirig, a Swedish physiologist, born in 1766; since which time it has been practiced in most parts of Europe, and is now introduced into this country by Chas. Fayette Taylor, M.D., of New York, author of the volume under consideration. He says, "the object of this work is not to discuss general exercise in its merely hygienic relations—that would be a fertile field, yet distinct from the present inquiry—but to investigate the strictly medical uses of active, passive and other *localized* movements. But it may be remarked in passing, that a great deal of harm is often done, and generally much less good is effected than might otherwise be, by the want of particular directions and explanations, according to a patient's temperament, age, sex, disease, and other requirements, in giving the common advice to take exercise." The first part of this work discusses briefly, but satisfactorily, the nutritive processes, muscular contraction, and the physiology of general exercise. His remarks upon the latter subject, showing its effect upon every tissue of the body, how it must be adapted to each particular case, what kind, and under what circumstances it must be employed, as well as his criticisms upon rearing, educating, and dressing females, is very appropriate, and will prove interesting both to the physician and general reader. The second part of the work, in which he treats of the therapeutics of the

movement cure, is very interesting and instructive; but time and experience can alone enable us to form a just opinion of the particular value of the method in several of the diseases referred to, for very few physicians have yet practiced it. In regard to its use in paralysis, deformities, and contraction of limbs, chronic injuries of the foot and ankle, angular curvature of the spine, and derangements of the nervous system, very few physicians of experience will hesitate to recommend it; and so also in regard to much that is mentioned about special diseases of women, amenorrhœa, dysmenorrhœa, &c.; but in regard to dyspepsia, chronic diarrhœa and constipation, all of which are said to be readily cured by this plan, we are not prepared to express an opinion, and can only suggest that a fair trial be made by those physicians who deem the subject worthy of notice. From the cursory reading we have given the book we have been most agreeably disappointed, and must commend it to the profession as a well written and instructive volume, upon a novel and distinct speciality; one which opens a new and wide field of inquiry and experiment to the physician, and calls our attention to a mode of practice which must be a great auxiliary to our ordinary methods of treating disease.

K.

S E L E C T E D .

Quinine as a Prophylactic.

That quinine is a prophylactic against malarious diseases is an established medical as well as popular opinion in many regions of our own country. The same belief obtains in other portions where malaria prevails to any great extent, and still practitioners who have little or no malarious diseases in their vicinity are quite ignorant of this fact. The Sanitary Commission has just issued an interesting circular recommending to the surgeons of the army quinine as a prophylactic against malarious diseases. The report is drawn up by Dr. Wm. H. Van Buren of this city (New York), who has had opportunities of testing the quinine; and as the facts which he presents, confirming the value of this agent, are of general interest to the profession, we shall notice them briefly. In many parts of the south and west the prophylactic employment of quinine is common by planters, for themselves, their families, their overseers, and negroes. Quinine is also used

in our merchant service, on the Isthmus of Panama, and in vessels trading with other unhealthy ports, to prevent attacks of fever. The President of the Panama Railroad Company, David Hoadley, Esq., furnished the chairman the following interesting statement: his attention having been called, in 1853, to the unusual amount of sickness which prevailed among the crews of vessels visiting Aspinwall, he was led to investigate the matter, and came to the conclusion that the regular habitual use of quinine by the crews, for a few days prior to the arrival of the vessels at that port, while in port, and subsequent to their departure, would remedy this evil. Accordingly, by the advice of a physician, he recommended the employment of wine and quinine made into a palatable mixture and called "wine bitters." This preparation was immediately placed on board of every vessel of the line, with directions for its use. The result we give in his own language:

"The result of this course exceeded our most sanguine expectations. From its very commencement a change for the better was seen, and during the last four years, in which seven vessels have been constantly employed in the trade, cases of sickness have rarely occurred—certainly not one case in ten, as compared with former times. The practice of using quinine, as above stated, is continued to the present day, and so uniformly healthy are the crews of our vessels that the subject no longer excites our solicitude. I would also remark that the use of quinine by the officers and employees of the company on the Isthmus has been found very beneficial, and in connexion with this, and the clearing and settlement of the adjacent country, Aspinwall has become one of the healthiest tropical ports of which I have any knowledge."

Prof. G. B. Wood of Philadelphia says: "There is no prophylactic measure against the miasmatic fevers at all comparable in efficiency to the use of this medicine." Dr. De Saussure of Charleston, South Carolina, believes that he has collected "a sufficient number of data to render the opinion plausible, if not conclusive, that quinine possesses power of protecting the white man from attack of intermittent and remittent fever, or its collaterals, when exposed for even long periods to malarious influences;" and he adds, "that its daily use is in nowise injurious to health, nor does its habitual use render the system insusceptible of its remedial powers." He mentions the following striking examples which came under his notice:

"An overseer agreed to take charge of several rice plantations in one of the sickliest regions of rice culture, undertaking to spend the summer months on one of the plantations. He made no inquiry as to the health of the one chosen as his residence—it was selected from its convenient locality. When warned of the

danger of his residing there in summer, he said he would never have the fever. His confidence in his capacity to resist malarious disease seemed unlimited. The result fully justified this confidence. He lived ten years or more in that neighborhood, spending every summer on the plantation, varied only by an occasional visit to the healthy pine land, where his family resided during the summer. He visited his rice fields without hesitation at any hour, day or night, that his business required. He never had an attack of fever during that time. I saw him after he had been there several years; a finer specimen of robust health it would have been difficult to find. It was ascertained on inquiry, that it was his habit to take quinine daily, during the summer, before leaving his house; the quantity he did not know, for he never weighed it."

"He was called in August to see one of the contractors on the Charleston and Savannah Railroad, laboring under a very severe attack of remittent fever, contracted during the superintendence of his contract between the Ashepoo and Combahee rivers, notoriously a very unhealthy region. During his convalescence, he informed me that he would have to return to his work on the road, where he had a large number of hands employed (150); that they were negroes brought from healthy regions in North Carolina, and he expected all of them to be more or less sick, as they were entirely unaccustomed to a malarious climate. I advised him to take quinine daily himself, and to give it to all his hands, white or black. Late in the fall I met him in the city; he looked healthy and well. He thanked me for the advice I had given him; told me had carried up some pounds of quinine; had used it himself daily, and compelled all his employees to take it also; that he himself had never had another attack of fever; that his health was better than it had ever been, and that not a single one of the one hundred and fifty hands he employed had been attacked by fever. In fact, he said: 'The only case of sickness I have had was in a negro who had come from North Carolina sick.'"

Dr. Van Buren alludes to his own experience while on the medical staff of the U. S. Army in Florida. A serious outbreak of miasmatic disease occurred at the station, and the stock of quinine being exhausted, a substitute was prepared with whiskey, the bark of the common dogwood, wild cherry bark, and a small quantity of quinine, which reduced the number of relapses, and mitigated the attacks.

The British naval authorities have long been impressed with these facts, and have acted accordingly. Dr. Bryson states in the Navy Medical Reports (No. xv.) that—

"It has long been a standing rule in the Navy, enjoined by the 9th Article of the Surgeon's Instructions, that when men are to be sent on shore in tropical climates, to procure wood and water,

or on other laborious duties, the surgeon, if he consider it advisable, is to recommend for each man, previously to his leaving the ship, in the morning, a drachm of powdered bark (Peruvian), in half a gill of wine, and the like quantity of wine after the mixture; or, if there be no wine on board, one-eighth of a gill of spirits, mixed with the fourth of a gill of water, is to be used in lieu of it; and the same proportion of each is to be given to the men on their return to the ship in the evening."

The British Army has been similarly provided, and the medical officers directed to employ quinine as a prophylactic. During the war of the Crimea, the Medical Director of the Army wrote as follows to the Inspector General of Hospitals:

"With reference to previous letters on the subject of administering quinine, and other preparations of bark, as prophylactic remedies, I have the honor again to draw your attention to the matter. From all I have learnt I am persuaded that the number of cases of fever would be diminished by such a course. So convinced am I, especially by the results of the experience of naval medical officers, of the benefits arising from the prevention plan, when followed in localities in which remittent and intermittent fevers are likely to prevail, that I have taken care to provide ample supplies of quinine in anticipation of every possible demand for that article. Having now at command sufficient of this drug, specially provided for that service, to furnish five grains per diem to every member of a force of 35,000 men, I beg you will take such measures as you think proper, with a view to induce the medical officers to employ that remedy, in the hope that it may prove useful in warding off attacks of fever, etc."

During the preparations for hostilities in China, in 1859, the Director-General issued the following order: "That a stock of quinine wine be provided, in order that a ration of it be given to the men previous to and during the unhealthy months, or when the soldiers are required to proceed up the rivers, or on being encamped in the vicinity of marshy ground. A medical officer should be present when the quinine wine is issued, and to witness the same being drunk by the men."

The committee continue their quotations at length from medical writers and travellers, showing conclusively that quinine is the great prophylactic as well as curative agent in malarious diseases. The importance of this circular at this critical period in the history of our volunteer army can scarcely be over-estimated. The great majority of the surgeons of these forces have been little accustomed to the treatment of malarious diseases. The season has arrived when the progress of the war is to transfer large bodies of troops directly into regions where malaria exists now in the most concentrated form. Unless some prophylactic is employed, these malarious fevers will decimate our susceptible army

in six months, and render it impotent against an acclimated foe. Haply it is in our power to shield those who go bravely forth to meet the exigencies of war, from one of those consuming forces which threaten the Northern soldier in his progress Southward, viz., malarious diseases. We cannot sufficiently commend the Sanitary Commission for its prompt recognition of the medical necessities of our troops, and the distinguished chairman for the admirable and convincing manner in which he has presented this subject to the consideration of our authorities and the surgeons of the army and navy.—*N. Y. Med. Times.*

Results of Tight Lacing. By D. J. Lyster, M.D., of
Brooklyn, New York.

When we breathe we take into the chest, or inhale, and give out, or expire, a certain quantity of air, which can be measured by breathing through a curved tube into a bell-glass full of water, inverted over a pneumatic tub. Dr. Herbst of Göttingen has lately been performing some curious experiments in relation to the quantity of air that is breathed. Now the commonest understanding will appreciate from them the value and comfort of full and unrestrained breathing. Dr. Herbst says, that a middle-sized man, twenty years old, after a natural expiration or emission of air, inspired or took in eighty cubic inches, when dressed, and one hundred and six when his tight dress was loosened. After full dilatation of the chest, he inhaled one hundred and twenty-six cubic inches when dressed, and one hundred and eighty-six when undressed. Another young man, aged twenty-one, after a natural expiration, took in fifty while dressed, and ninety-six when undressed.

Had Dr. Herbst made his observations on some of the ladies, who carry the use of corsets to extremes, we apprehend that he would have obtained results of a nature really alarming. If the wheel of fashion which revolves even more rapidly than that of fortune itself, would but bring up something oriental in costume, it would go far towards perfecting the objects of our journal—the public health.

At the Hotel-Dieu, the great hospital at Paris, a young girl at eighteen lately presented herself to M. Breschet for his advice. On the right side of her throat, she had a tumor of variable size, but never bigger than one's fist; it reached from the collar-bone as high as the thyroid cartilage (called in common language, Adam's apple); when pressed downwards it wholly disappears, but returns as soon as the pressure is removed; it is indolent, soft, and elastic. It is observed to be largest when the chest is

tightly laced in corsets. In short, by placing the ear on it, the murmur of respiration can be had in the tumor, which proves that a protrusion of the lungs has taken place; or, in other words, that this poor girl has been laced so tightly that her lungs, having no longer sufficient space in their natural situation, are squeezed out of it, and are forcing their way up along her neck.

[*N. Y. Amer. Med. Times.*

On Indian Hemp, particularly in relation to its Property of Producing Sleep.

Dr. Fronmüller first employed the Indian hemp in the case of a phthysical patient in the year 1850, and since that time he has devoted himself to the especial study of the properties of this substance. The result has been the production of a treatise founded upon the clinical observation of a thousand cases in which Indian hemp was administered. This plant has been very much extolled by many practitioners in various countries, but has lately fallen into disuse, owing to the supposed uncertainty of its operation. The discredit attached to it is attributed by Dr. Fronmüller partly to the contradictory statements published concerning its operation by various writers, and partly to the difference in its effect in the Eastern hemisphere compared with those observed in Europe. The Indian hemp in India and that grown in Europe present the same external form, but they differ in the relative proportion of narcotic resin which each contains, and which is the active principle of the plant. It appears that the amount of resin depends not only upon differences of latitude, but also upon the depression or elevation of the regions where the plant is grown. Chemical analysis has discovered that the Indian hemp contains gum, bitter extractive matter, albumen, chlorophyll, etherial oil, and a peculiar resin. This resin is called *cannabin* by some writers, and forms six to seven per cent. of the dried plant. The ethereal oil has been obtained by Martius only in small quantity; it is of a slightly yellowish color, of a peculiar ethereal camphor-like smell, and an aromatic astringent, and afterwards bitter taste. The preparations of Indian hemp hitherto employed are the powdered plant for pills or powder, resinous extract of hemp in powders or pills, tincture of the resin, and emulsion.

With regard to its application to the practice of medicine, the Indian hemp may be considered valuable as a tranquillizing antispasmodic drug. It has been employed with favorable results in tetanus and trismus, cardialgia, rheumatism, and in some mental diseases. Of 1,000 cases in which this drug was administered by Dr. Fronmüller, 552 were males and 448 females, and the

patients were of various ages, from one year to fifty and more. The principal diseases of the patients were tuberculosis, inflammation, surgical diseases, rheumatism, diseases of the eyes, nervous diseases, and dropsy. The greater part of the cases were treated by the spirituous extract prepared by Merk in Darmstedt; but others were treated by the extract prepared by the late Dr. Jacob Bell of London. It is to be observed that all the observations were made on cases in which there had been no sleep for several nights, and in which the continuance of sleeplessness was to be anticipated unless some narcotic was employed.

Out of the thousand cases, it was found that the narcotic property of the hemp was completely developed in 530, partially in 215, and little or not at all in 255. With the extract of Indian hemp, the best effects were produced 145 times with a dose of 12 grains, 64 times with a dose of 8 grains, 63 times with a dose of 10 grains, 35 times with 16 grains, 22 times with 3 grains, 17 times with 2 grains, 15 times with 14 grains, 14 times with 20 grains, 13 times with 6 grains, 12 times with 5 grains. The period of falling to sleep, and the duration of sleep in the cases, are numerically recorded by Dr. Fronmüller, and also the number of cases in which unfavorable results ensued on the day of taking the drug, or on the next morning. Comparative observations were also made with morphia in cases where the Indian hemp had failed. Out of 29 cases in which Indian hemp had produced no effect, sleep was produced by morphia in 24. The dose of morphia was in general rather a strong one—from one-sixth of a grain to two grains—in order to induce sleep. In the remaining five cases the morphia produced no effect.

The conclusion to which Dr. Fronmüller arrives as the results of his observations are the following:

1. That Indian hemp, among all the known medicines which cause stupefaction, is that which produces a narcotism most completely supplying the want of natural sleep, without occasioning any great excitement of the vascular system, without special stoppage of the secretions, without the supervention of unfavorable consequences, and without subsequent paralysis.

2. That Indian hemp, on the other hand, is not so strong nor so certain in its operation as opium.

3. That Indian hemp may be given in all acute inflammatory diseases and in typhus fever.

4. That it is worth a trial to alternate the Indian hemp with opium in cases where the latter fails.

5. That the best mode of administration is the alcoholic extract in small pills which contain an addition of the powder of the Indian hemp. The lowest dose for producing sleep may be estimated as eight grains given in pills of one grain each.

[*B. & F. Med. Chir. Rev.—Amer. Jour. of Insanity.*

On Puerperal Insanity.

[We extract the concluding pages of a very valuable article, too lengthy for our space, in the July No. of the American Journal of Insanity, from the pen of Dr. J. H. Worthington.—*Ed.*]

“The prevention of puerperal insanity will consist in placing the female under the most favorable hygienic influences which her circumstances will allow. Care should be taken to guard against every source of exhaustion. It ought to be remembered that the discharge from an extensive surface, like that of the interior of the uterus after parturition, cannot fail to reduce the strength of the patient. Her diet, therefore, while it is unstimulating should be nutritious. In her susceptible condition, she should be guarded from all excitement, such as unnecessary visits and conversation, and kept as much as possible out of the reach of anxiety and other painful emotions. Errors of regimen, such as exposure to cold, and indulgence in improper articles of diet, should be avoided. During inaction, if symptoms of anemia should be manifested the infant should at once be weaned, care being taken to avoid the distension of the breasts with the lacteal secretion, and the formation of abscesses. The return of menstruation should be carefully watched, and especial care taken to avoid every exposure until the function is re-established.

“In puerperal as an ordinary insanity, so little is positively known of the anatomical lesions which characterize the disease, that in forming a judgment of its nature we are obliged to depend on our knowledge of its causes, and the circumstances under which it most commonly originates, rather than upon the structural changes it produces. The data furnished by morbid anatomy are almost entirely of a negative character; autopsies in the fatal cases having generally failed to show any positive evidence of inflammatory action. It is true that the recent researches of Dr. Calmeil have led him to conclude that acute delirium, which so frequently supervenes in fatal cases of puerperal insanity, is an inflammatory discolor of the cortical cerebral substance; yet he considers it an inflammation which is generally, if not always, met with in exhausted conditions of the system, and cannot be treated by active, antiphlogistic measures. In regard to the nature of the affection, Dr. Macdonald remarks: ‘When insanity occurs during the puerperal state we would expect to find the disease one of irritation rather than of inflammation; for it is admitted by all that the susceptibility of the female is never greater than during this period. She has been exhausted by uterogestation, while from the growth of the foetus she has required more nourishment than usual; the irritability of her stomach has perhaps prevented her from using her accustomed quantity of food;

she has been debarred from exercise in the open air, that preserver of life and health, and has been worn down by the doubts, and fears, and anxieties that are so apt to hang over the minds of women under these circumstances. In this state we would not look for inflammation; nevertheless, we may sometimes meet with it, as we do with pneumonia in typhus, or after severe injuries or surgical operations, where there has been great loss of blood and strength. But it is not that active, vigorous inflammation which occurs in strong individuals. It is an inflammation which, judicious practitioners tell us, is often more successfully treated by stimulants in conjunction with other remedies. When it occurs during lactation we would expect to find a disease of debility, and we do find the mother pale, emaciated, reduced by suckling a large vigorous child, and by nights of watchfulness and anxiety for her offspring."

"Various therapeutic measures have been proposed in the treatment of puerperal mania, among which may be mentioned local or general blood-letting, tartar emetic used as a contra-stimulant, warm baths, purgatives, narcotics, etc. I need not enter into any detail respecting the operation of these remedies. It will be sufficient to say, in regard to *all* depleting measures, that notwithstanding the appearance of energy and vital activity which may be supposed to be manifested by the quick pulse and great muscular strength often exhibited by patients in a condition of extreme maniacal excitement, experience has proved, in too many instances, the injurious effects of all remedies of this description. In many cases in which, judging from the high grade of the delirium alone, we might be disposed to believe in the existence of inflammation, and consequently to resort to depletion, pain in the head, increased heat of the scalp, general fever, and other signs of inflammation are absent, and so far from being of service, any active depletion will then invariably render the condition of the patient more unfavorable. If, in an exceptional case, or in one in which the diagnosis is doubtful, the pulse should be found full and strong, and the condition of the patient appear to require depletion, it should be resorted to with the utmost caution, and its effects should be carefully watched.

In the commencement of an attack of puerperal mania, it will generally be necessary to have the patient placed in a room partially shaded, which shall be kept as quiet as possible, and into which no one shall be allowed to enter except the necessary attendants and nurses. A warm bath, continued for one, two or three hours in the evening, will tend to allay nervous irritation, and promote sleep. The bowels should be regulated by simple laxatives, and as there will generally be found a vitiated condition of the mucous membranes, evidenced by a furred tongue and offensive breath, laxatives should be continued daily with small

portions of blue mass, until the tongue shows signs of improvement. Some gentle narcotic, of which a combination of asafoetida, hyoscyamus and camphor is a good example, should be given every three or four hours. The diet should be unstimulating but nutritious, and may advantageously consist in great part of new milk, given as frequently as the patient can be induced to take it, or as the stomach will bear it. If the acceleration of the pulse, the dry tongue, and the increase of maniacal excitement should indicate the supervention of acute delirium, the same treatment should be continued; but in these cases great difficulty will generally be experienced in controlling the movements of the patient, and in administering the necessary food and medicine. In this state there is a strong tendency to prostration, under the combined influence of the excessive muscular efforts of the patient, her almost total deprivation of sleep, and obstinate refusal of food. It is absolutely necessary, under these circumstances, to restrain the motions of the patient, by confining her with a bed-strap, by which means her strength will be husbanded, and the entire management of the case will be rendered more easy, and at the same time effectual. It is very important in these cases that the physician should have entire control of the bodily movements of the patient, in order that he may be able to apply warmth to the extremities if it should be needed, and also that he may have it in his power to administer food and drinks in such quantities as are necessary to support the strength of the patient. Unless these cardinal points are attended to, but little good can be expected from the exhibition of medicines. In many cases of acute delirium the patients refuse food with such obstinacy that it is impossible, by any ordinary means, to give it in sufficient quantity. The œsophagus tube, which should be small enough to pass through the nostril, must then be resorted to, and a pint or more of milk, beef-tea, or other liquid nourishment, be injected into the stomach twice daily. If there should be increased heat of the scalp, it may be sometimes removed by warmth to the extremities, or by a dose of laxative medicine, or, if these means fail, by the application of cold to the head. Mustard pediluvia in the evening are always of service, and blisters to the extremities have been found useful as a derivative. It sometimes happens, that, with considerable mental anxiety and distress, evidences of cerebral expression will become apparent; the patient is conscious of everything about her, but appears to labor under difficulty in collecting her thoughts, and in recalling the occurrences of the day. In attempting to do so her mind becomes confused, and the effort fails of its object. With these symptoms of oppression and tendency to coma, I have found, in the absence of fever, the application of a large blister covering the entire scalp to be followed by a decided improvement in the cerebral disorder, and relief to all the symptoms.—*Chicago Med. Jour.*

The Morning Sickness of Pregnancy.

There being no regular essay or other business presented, Dr. Murphy inquired if any member of the Academy had had any experience in the use of *oxalate of cerium* in controlling the nausea or "morning sickness" of pregnancy.

Dr. Stevens stated that he had recently made use of that remedy in a single instance with apparent good effect. The lady had used bismuth, brandy, champagne, and most of the usual resources of our art without effect; the oxalate of cerium was then tried in doses of one and a half grains, affording great relief, though not entirely arresting the trouble.

Dr. Foote had tried the remedy in three cases some time since—in one with entire relief, in another with much benefit, but not so decided as in the first; in the third case without any special relief.

Dr. Bonner had used the oxalate in several cases, but had not observed any particular effect whatever.

Dr. Gans stated that he had used this medicine to considerable extent for other forms of nausea than that known as morning sickness, but his experience had not led him to feel much dependence upon it as a reliable remedy.

Dr. Smith raised the question as to the *cause* of morning sickness, appealing especially to Dr. Murphy.

Dr. Murphy considered Dr. Smith quite as able to give a satisfactory explanation of the phenomenon as any gentleman present. He proceeded, however, at some length, to dwell upon the commonly received causes as given by standard authorities. He also alluded to the wonderful difference in this matter with different women; some passing through their entire pregnancy free from any trouble of this kind, while others are excessively distressed from the beginning to the end of gestation. He presumed that the great majority of cases of morning sickness was dependent on some lesion of the neck or walls of the uterus. In many cases, he had no doubt the muscular structure of the wall of the uterus was in some way in fault. Dr. M. also alluded to the fact of these causes being so marked as to continue the trouble so excessively as to result in abortion.

Dr. Smith said that very extravagant claims had been made for the oxalate of cerium; some going so far as to fancy that it would uniformly or generally control morning sickness, which otherwise must necessarily result in abortion—or in many cases which otherwise could only be relieved by an evacuation of the uterine cavity. He had no doubt of its good effect in many cases, but supposed that its efficacy was greatly exaggerated. He supposed that morning sickness, if not excessive, was not a symptom to be

specially deplored; and he was not of the opinion that, except in extreme cases, it was desirable to interfere; most cases had an excellent final result, despite the nausea.

Dr. McIlvaine alluded to the fact that morning sickness had been very improperly, as he considered, made the pretext, in a number of cases which had come to his knowledge, for the production of abortion.

Dr. Carroll supposed the cases demanding the production of abortion were very rare, and yet he knew from his own personal experience that such cases did now and then occur. He related in illustration the case of a lady over on the Kentucky side of the river. When he was called to see her, she was four months advanced; sickness very distressing, much emaciated; a very extensive and peculiar skin disease had made its appearance on the arm. He considered her condition extreme and dangerous. An ineffectual attempt had already been made to rupture the membranes and procure an abortion. He repeated the effort with success, and after the abortion the patient was restored to speedy health. He endeavored to impress upon the lady that she should not become pregnant again; but, notwithstanding this advice, in time pregnancy again occurred, and was attended with a repetition of the same peculiar and distressing group of symptoms as before; which continued until abortion was again resorted to. He therefore supposed there were occasions in which this became a legitimate resort, but considered such cases exceedingly rare. In this case in both instances the dead foetus was diseased after the type of the mother, as to the skin affection.—*Lancet, from Proc. Cincinnati Acad. of Med.*

Embolia in the Arteries of the Extremities. By Professor
OPPOTZER.

The crural artery is oftener obstructed than the axillary. A plug sent to the former, either from the heart or from some part of the aorta, may be detained near Poupart's ligament, or carried on to the profunda femoris, or posterior tibial artery.

Symptoms.—The circulation being instantly interrupted at the point of obstruction, the muscles are suddenly paralyzed, with a sensation as if the extremity was knocked off. Then follows a gradual decrease of temperature; the sensibility of the skin, however is at first not much diminished. After a short time the most various painful symptoms set in, especially pricking and formication, changing by degrees into the most violent pains, with abolished sensibility, which is the most prominent symptom. At the same time the extremity grows colder, assumes a marmorated

color, first blue, then lead-like, finally black. Atrophy and mummification, proceeding from the toes, progress up to the region where meanwhile a collateral circulation may have been established.

Thrombosis of the crural vein can be formed in consequence of the wanting arterial impulse. In that case there is considerable oedematous swelling of the extremity, frequently with ecchymosis and running into sphacelus.

Diagnosis.—Absence of pulsation in the crural artery and its branches; the vessel completely disappearing under the examining finger. In thrombosis of the artery, a solid string is felt through its whole course; ossification characterizes itself by the rigid portions alternating with soft ones. Congenital artesia of the aorta near the duct of Botalli is also accompanied by loss of pulsation in the crural artery, but in both extremities, and a closer examination discloses the superficial branches very extended, and presenting a vibrating pulse.

Simultaneously with the absence of pulsation appears sudden paralysis of the extremity. This can hardly be mistaken for paralysis from the spinal marrow, or from pressure of the nerves. If associated with affection of the opposite hemisphere of the brain, the wanting pulsation must decide the diagnosis.

Prognosis.—Unfavorable. Death results from exhaustion or pyræmia, in consequence of extensive mortification. In exceptional cases, the gangrene is stopped by a well-established collateral circulation, and the mortified parts being detached, recovery follows.

Treatment.—Very little can be done beyond mitigating the pain by cold applications. Amputation would only be advisable where the gangrenous parts show an inclination to separate.

All these remarks apply with the same force to embolia in the arteries of the upper extremities.—*Wiener Medizinische Wochenschrift.*—*Cleveland Med. Jour.*

Rigidity of the Os Uteri. By CHALES ARNOTT, M.D.

A rigid os is, perhaps, one of the most frequent causes of lingering labor. The pains are regular, increase in severity, and reach an intensity that assures all present of a speedy delivery. Examination reveals a dry, rigid vagina; the os high up, posteriorly, with an opening barely sufficient to admit the finger; the foetal head low down, anteriorly covered with the uterine walls, and at each pain appearing as if about to force its way through these tissues. Thus, labor may continue for hours. In the majority of cases, the os is

not truly in a rigid state, but the absence of the dilating power of the wedge-like "bag of waters," the membranes being ruptured early, produces delay, and the head is driven not directly into the os, but against the anterior wall of the uterus. Dr. Arnott regards the usual treatment of these cases as highly improper, and prefers reduction and dilatation by manipulation, or in more aggravated cases incision of the opposing texture. The parts should be freely lubricated, the finger introduced during each pain, and the os drawn gently downward and forward, and at the same time dilated. A speedy improvement is the result, though in a small majority the os may require a slight notching with the bistoury. Dr. Arnott considers this but an imitation of nature, as the practitioner frequently observes spontaneous laceration, even to a great extent, as occurring in such cases. This plan he has followed for many years, and always with benefit. Never having encountered a case where any evil resulted, he believes it almost entirely free from danger.—*Lancet*.—*Journal Materia Medica*.

Chloride of Zinc in Diseases of the Skin.

Since Hanke, in 1841, called attention to this remedy, Dr. Veiel of Cannstatt has employed the same in the following three forms:

1. Spirit of alcoholic solution: equal parts of the chloride and alcohol.
2. Liquor or aqueous solution: chloride of zinc and muriatic acid, of each ten parts; water, five hundred parts.
3. Sticks or pencils, prepared like the sticks of caustic potassa, with which this form also corresponds in the manner of application.

The sticks are used to destroy hypertrophic lupus, by repeated boring; in exfoliative and exulcerative lupus the application of this spirit, followed by the liquor, proves sufficient. Superficial or erythematous lupus requires the spirit attenuated by the liquor. Other cutaneous diseases benefitted by these preparations are, obstinate eczema of the eyelids, lips, genitals, anus—the spirit painted over; solar and impetiginous eczema—the liquor applied daily; eczema of the tongue, fissures of the nipples, scrotum or hands, callosities, etc.—one part of the spirit mixed with ten parts of the liquor; remains of psoriasis—spirit; a certain form of palmar psoriasis, with corn-like painful protuberances—stick; syccosis, favus, and some varieties of acne—liquor; circumscribed indurations on the nose, cheeks, and lips—spirit; chronic ulcers of the feet, with callous edges—spirit; cyst, ulcerating glands,

fistulæ—spirit; condyloma, molluscum, seborrhœa, burns, chilblains—liquor.

The chloride of zinc enters into combinations with nearly all the elements it meets, and produces a descending irritation, which leads to contraction of the surrounding parts. Hence result diminution of the wound, speedy formation of pus, detachment of the crust and granulation, and finally a good scar. On this account the chloride is preferable to acids, caustic potassa, nitrate of silver, iodine, and other caustics.—*Zeit. d. Gesel. d. Aerzte zu Wien.*—*Journal of Materia Medica.*

The Properties of Liquid Carbonic Acid.

By GEORGE GORE, Esq.

In this communication, the author shows how a small quantity of liquid carbonic acid may be readily and safely prepared in glass tubes closed by stoppers of gutta-percha, and be brought in a pure state into contact with any solid substance upon which it may be desired to ascertain its chemical or solvent action, or be submitted to the action of electricity by means of wires introduced through the stoppers. By immersing about fifty substances in the liquid acid for various periods of time, he has found that it is comparatively a chemically inert substance, and not deoxidized by any ordinary deoxidizing agent except the alkali metals. Its solvent power is extremely limited. It dissolves camphor freely, iodine sparingly, and a few other bodies in small quantities. It does not dissolve oxygen salts, and does not redden solid extract of litmus. It penetrates gutta-percha, dissolves out the dark-brown coloring matter, and leaves the gutta-percha undissolved, and much more white. It also acts in a singular and somewhat similar manner upon india-rubber. The india-rubber while in the liquid acid exhibits no change, but immediately on being taken out it swells to at least six or eight times its original dimensions, and thus slowly contracts to its original volume, evidently from expansion and liberation of absorbed carbonic acid, and it is found to be perfectly white throughout its substance. These effects upon gutta-percha and india-rubber may prove useful for practical purposes.

The liquid acid is a strong insulator of electricity; sparks (from a Ruhmkorff's coil) which would pass readily through 9-32ds of an inch of cold air would with difficulty pass through about 1-70 of an inch of liquid acid.

In its general properties it is somewhat analogous to bisulphide of carbon, but it possesses much less solvent power over fatty substances.—*Proceedings of the Royal Society, in Chemical News.*—*Dublin Med. Press.*—*Pacific Med. & Surg. Jour.*

Some Effects of Reflex Nervous Irritation produced by Syphilitic Disease of the Bones of the Skull.

Henry Lee, Esq., Surgeon to King's College Hospital, &c., London, presented a paper with the above caption to the Royal Medical and Chirurgical Society at the July meeting of that body.

This paper was a continuation of one which the author laid before the society during the last session. The particulars of three cases were then related, in which extensive and persistent ulcerations had occurred in different parts of the body. These ulcerations were accompanied, in the first case, with deafness and impaired voluntary power; in the second, with fits of long-continued spasm of some of the muscles of the face and body; in the third, with delirium and coma.

In one case, the ulceration had existed for a period of six years, and had destroyed the left eye and left nostril; and in another, the ulceration had continued for a period of eight years, and had involved the whole of the skin of the right arm.

In addition to the above cases, the author referred to two other instances in which disease in the bones of the skull had produced marked nervous symptoms; and in one of these persistent and long-continued ulcerations had been present. The author remarked that a state of chronic spasm may be produced in blood-vessels as well as in muscles by nervous irritation; and the *post-mortem* examination of two of the above cases showed the irritation to have originated in the bones of the skull at a distance from the origin of any of the motor nerves, and he therefore concluded that as the parts of the base of the brain were healthy, the nervous irritation (shown in different ways in different cases) depended upon reflex action. The same action which would produce spasm of the muscles at one time might produce spasm of the blood-vessels at another, and thus interfere with the process of nutrition. To this cause the author attributed the ulcerations in the above named cases.

The details of two *post-mortem* examinations were particularly insisted upon. In both of these, the inner table of the skull had been extensively diseased, and had been the cause of disease of the dura mater. In both cases, the parts at the base of the brain were entirely free from disease; and it was particularly noticed, that in those situations where the diseased internal table had been removed (in one case artificially), the membranes of the brain were healthy; but in those parts where the diseased bone remained, that the bones were also diseased. The conclusion drawn by the author was that where portions of bone were exposed by disease, the external and middle tables might be removed by the trephine without any danger; and that where the

internal table was diseased, and the locality of that disease was indicated, which might be, by the exposed external table, then the whole thickness of the skull might be removed by the trephine. This operation of removing the whole thickness of the skull had been performed by the author now in six cases. In three of these, the symptoms for which the operation were performed was decidedly relieved; in two, there was less decided benefit; and in none did the operation cause any fresh complications. In five out of these six cases, the external table was denuded and diseased, and served as a guide to the exact locality of the disease of the internal table.

The following case was related by Mr. Lee, the patient having been sent to him by Dr. Edmunds of Spital-square, a few hours only before the meeting of the society: A man, twenty-five years of age, had an indurated chancre four years ago. He was not attended at the time by any surgeon; but was subsequently treated, but without attending regularly, by iodide of potash. He took no mercury until after the appearance of the following symptoms:

Eighteen months ago a large swelling appeared over the left parietal bone. This was accompanied by considerable pain. In September last, he was "took all at once" with a kind of fit, which lasted an hour. After this had subsided, the pain in the head continued for a considerable period worse than before. During this fit he lost his senses; but he has had several fits since, and has always retained his consciousness. The fits begin with a kind of "trembling pain" in the left shoulder, and this sensation gradually extends down to the tips of the fingers. The muscles in the hand and arm become quite stiff. After about a quarter of an hour the fit ceases, and leaves a dreadful "heavy pain" in the head, particularly at the top. This pain sometimes lasts for two or three days, and during its continuance he is conscious of what is going on, but "feels staggering" with a continual inclination, if on his legs, to press forward. Can speak during the fits, but feels little disposition to do so. He never passes more than a month or five weeks without being in bed for two or three days with pain in the head. On one occasion, he had "cramp in the lower jaw," and "felt as if the skin was set." Before the pain comes on he hears a noise in his ears like the tramping of soldiers. He can place his finger upon the spot where he feels most pain—at the upper part of the parietal bone, a little to the left side. He remembers having had five distinct fits independent of the periodical attacks of pain. During the occurrence of these fits, the fingers of the left hand turn pale, and remain so for two or three hours. None of the other limbs are ever affected.

The author remarked, that in this case, as in those to which he

had referred in his paper, there was, during the occurring of the fits, an affection of the muscles of one particular limb of the blood-vessels of the same part, as indicated by the bloodless condition of the skin. The seat of disease, as indicated by the pain, was at the top of the head, and unconnected with the origin of any motor nerves; and he therefore concluded that this, like the other cases contained in the paper, was an instance in which irritation of the dura matter by disease of the bone had by reflex action produced the symptoms which had been described.

Dr. Edmunds stated that the last case to which Mr. Lee had referred had come under his care. The patient had originally been the subject of Hunterian chancre, and had come to him afterwards for swelling of the glands, for which he had prescribed iodide of potassium. He had subsequently presented himself with a painful swelling of the parietal bone, tumor of the tibia, &c. Twelve months afterwards fits came on.—*Lancet*.—*Pacific Med. & Surg. Jour.*

Quinine as a Prophylactic in Malarious Regions. By J.

KING MERRITT, M.D., *late Resident Surgeon to the New York Hospital.*

As early as the autumn of 1850, my attention was directed to the use of quinine in tropical malarious districts. I was then acting as surgeon of a mining and exploring party, engaged in operations in the Province of Veraguas, on the Isthmus of Darien. The party consisted of northern whites, of different nationalities, such as Americans, Swiss, Irish, and Germans, and besides, native Indians and Negroes. The locality was a miasmatic section productive of intermittent fever, and its collaterals, of somewhat less intensity and less grave a type than the so-called Chagres fever. Every one suffered more or less from frequent attacks of malarious disease. The natives, however, were usually affected with a milder and less persistent grade than the foreigners.

In less than two weeks after my arrival at my post, I was myself attacked with a paroxysm of intermittent fever of ordinary severity. About sixty to seventy grains of quinine were taken during the interval, which produced the ordinary signs, such as ringing in the ears, etc. There was no recurrence of paroxysm, but I continued the use of quinine for seven days afterwards, taking, during this time, from fifty to sixty grains. Notwithstanding this amount of quinine taken into my system, I had a repetition of fever in twenty-one days after the discontinuance of its use, whereupon the same ordeal was adopted of taking quinine to point of saturation after first paroxysm, which succeeded in preventing recurrence of fever as before. These repeti-

tions of fever occurred frequently, although the amount of quinine taken was considerably increased after each attack by the longer continuance of its use. I became anxious, because at every attack of fever I was incapacitated for duty during several days (though having only one paroxysm on each occasion), which resulted from the combined depression of fever and quinine to the point of saturation.

I also observed that several members of the mining staff (Germans), who had been six months in service, were liable to repeated attacks of fever, quite as frequent and as severe as during their first month of service, although at each recurrence of paroxysms of fever quinine had been freely used. Besides, they were rapidly acquiring the malarial cachexia, which had reduced their tone of system much below par, and consequently rendered them subject to protracted convalescence. Upon keeping an account of the amount of quinine, which myself and several of the whites, similarly susceptible to malarious influences, had consumed during two months, I found the average per day, of different individuals, ranged from six to eight grains, and yet all were liable to attacks of fever from over-fatigue or unusual exposure—*particularly to the sun's rays*—whenever the use of quinine had been suspended for some time.

It seemed to me, in my own case especially, that the development of a paroxysm of fever was to be studiously avoided, as, during such, there was a sudden accumulative miasmatic force generated, probably of a zymotic character, which entailed a commensurate increase of quinine to counteract it. Accordingly, I adopted the practice of giving and taking quinine daily, as a prophylactic, in the following manner :

At early morning, immediately before breakfast, five grains of quinine dissolved in a fluid-drachm of water, by the addition of a sufficient quantity of aromatic sulphuric acid, were given at a dose. This was generally taken diluted in a wineglassfull of clear cold coffee, which, by the way, was the best menstrum in my experience to render the quinine acceptable to the stomach, and to disguise its peculiar bitterness so obnoxious to many. At the beginning of this prophylactic practice, it was very often necessary to repeat this dose at nightfall, as premonitory symptoms would manifest themselves, especially after a day of more than ordinary exposure or fatigue; and on such occasions the quinine was administered in a half gill of whiskey, which was used designedly, because stimulation to a moderate degree has proved beneficial in my experience after an exhaustive day. And here, I may remark, that it has also been my experience not to stimulate before undertaking an arduous duty; but when the normal powers begin to flag, then the requisite amount of stimulus is very beneficial and most judicious in tropical malarious coun-

tries. After pursuing this course for three months, it was very evident that there was a marked improvement in the general condition of the members of the staff before referred to, and in my own case no repetition of fever. In calculating the average consumption of quinine per day for each individual, it was found to be about ten per centum less than in the previous two months. In my own case, I now determined, having become somewhat familiar with the premonitory symptoms of malarial disease, which, I believe, can always be detected by an intelligent and close observer, *for they always exist*, to reduce the daily dose of quinine to its minimum. Also, as the members of the party recovered a fair state of health under the daily full doses, I began to try the same experiment with them by gradually reducing the amount of dose rather than the frequency. Every intelligent member of the party, both northerner and native, was instructed in the rationale of the procedure, and urged to promptly report the slightest variation from the standard of health, in order that the dose of quinine might be accommodated. I may here remark that strict sanitary regulations had been enforced from the very commencement of the operations; and although the status of health of the party generally was better than with other similar parties under like circumstances in neighboring districts, nevertheless sanitary measures, irrespective of quinine, and the mode of its administration, were inefficient to prevent malarious diseases from being developed almost universally among the mining staff and operatives.

The experiment for ascertaining the minimum quantity of quinine required as a perfect prophylactic was continued for three months, and resulted as follows: That in different individuals the prophylactic dose of quinine is not required to vary as much as the curative dose of quinine, and that with the reduction in the aggregate consumption of quinine of sixteen per centum below that of the first two months, the general health of the party had so much improved, especially with the white portion, that only one-fifth of the time was lost from sickness that was formerly the case. There was in my own case even more decidedly favorable results obtained, such as complete immunity from malarious disease, with the reduction of twenty-three per centum of quinine, and the discontinuance of the daily necessity of taking the bitter dose. This relief from the daily use of quinine was also enjoyed by a few other members of the party, who were more than ordinarily cautious and observing, but the rest would be surprised by the stealthy enemy if allowed to act as their own sentinel.

This almost complete immunity from miasmatic disease enjoyed by the party for more than two years, under the prophylactic use of quinine in diminished quantities, was not the result of acclimation, as there was abundant evidence to the contrary in excep-

tional cases. For example, whenever a detachment of the party on special service was removed from my surveillance, and from carelessness or other circumstances the use of quinine was suspended for a time, miasmatic maladies were certain to be developed in the majority. Also, the native, in whom acclimatization must be assumed to be complete, exhibited the benefit of the prophylactic use of quinine, and his dependence on it for immunity from malarial disease, whenever its use was suspended for a greater or less length of time.

In contrast to these results obtained from the prophylactic use of quinine, and to give some idea of the intensity of the miasma pervading this locality, I will mention the case of a gentleman who became a victim to this scourge of the tropics through a prejudice against quinine. Doctor R—, aged 40, a respectable practitioner of medicine, from spirit of adventure, joined our enterprise. He was enjoying robust health, and was quite prudent in his habits of life. He entertained the notion that the natural powers of his system, with the observance of proper sanitary measures, were able to resist the malarial influences of the country. He was very active and vigorous, and soon became zealously engaged in the mining operations, which gave full recreation to his mind and exercise to the body. In fact, he was a fair example of a hearty man with favorable surroundings and influences to resist malaria. After a month's sojourn, he exhibited the undoubted signs of miasmatic cachexia, and he was warned to use quinine, but would not consent. In the course of the following fortnight these indications increased, when suddenly he was prostrated by a congestive chill from which he never rallied, although heroic measures were then adopted to bring on reaction.

Another illustration of a more extended character I will relate, to show more conclusively the urgent necessity for the use of quinine in this region, and also to give a striking contrast to the results accruing to my party after two years' experience. I will premise, that the mining operations were, after the two years mentioned, disposed of to an English company. A complete mining staff was sent from England to continue the works. It was composed principally of English and Welsh, and numbered twenty-three persons. Everything that science and art could supply was liberally provided in their outfit. Upon the arrival of this party of Europeans, I removed to an adjoining district with an exploring party. The surgeon of the staff was cautioned by myself to practise and enforce strict sanitary measures, particularly the use of quinine as a prophylactic. He partially admitted the necessity, but added, that even if disposed to carry out the plan suggested his superior officers would not sustain him. The result was, that in less than a month there were only five mem-

bers of the staff, excepting the surgeon, able to perform duty, and three of the five mentioned had taken some quinine at irregular intervals; the benefit of which had been taught to them by previous experience in Brazil and the East Indies. Of the remaining seventeen officers and miners, who had been attacked by the malarial fever, three had died within a week after the paroxysmal development of the disease, and the other fourteen were invalided and sent home, after a month's treatment with full doses of quinine, in a deplorable state of shattered health. In estimating the amount of quinine consumed in the aggregate by the party for the two months' after arrival, and with above mentioned results, it was found to exceed by a fraction seven grains daily per man. A part of this unhappy result may be ascribed to the free use of stimulants, and negligence of ordinary sanitary measures. These incidents occurred in 1853, and so confirmatory were they of the great necessity to anticipate the explosion of miasmatic impregnations by the introduction of quinine into the system, that it became my settled course of procedure for the six subsequent years, during which I was connected with mining and exploring parties in New Grenada; and it was my good fortune not to have a fatal case or protracted convalescence from malarious disease, either with northerner or native.

In conclusion, my deductions from the experience of nine years' use of quinine in tropical malarious districts are:

1st. That no serious harm to the system ensues from the long continued and judicious use of quinine.

2d. That quinine given as a *prophylactic will certainly prevent the developments of miasmatic disease*, and neutralize malaria already in the system.

3d. That the amount of quinine required to maintain a status of health under malarious influences is much less, when used as a prophylactic, than as a curative after development of miasmatic disease.

4th. That the amount of quinine required as a prophylactic is more uniform, than as a remedy after attack of malarial disease.

5th. That quinine will not always restore to health a person *after repeated attacks* of malarious disease, but will *frequently fail* to prevent malarial cachexia, especially if not removed from the miasmatic influences.

6th. That cold clear infusion of coffee is the preferable diluent for morning dose, and whiskey for the evening dose of quinine as a prophylactic.

7th. That quinine dissolved in spiritus nitri dulcis produces very happy effects when administered during paroxysms of malarial fever.

[*American Med. Times.*

Lecture on Diseases of Children. By A. JACOBI, M.D., *Professor of Infantile Pathology and Therapeutics.*

The following pages are by no means intended to contain a full exposition of the materia medica of the infantile age. They are destined rather to show, condensed and summarily, part of the practice of the Clinic for Diseases of Children in the New York Medical College. Thus they will, I hope, prove a convenient compilation to those gentlemen whom I have had the honor to instruct, and perhaps a welcome subject for examination and criticism to the other members of the profession. They will judge whether the principles adopted by me in the treatment of the diseases of children are correct, and particularly whether we are at all justified in speaking of a materia medica of the infantile age. I am sure that we are. A physiology and pathology of the infantile age have long been treated of as separate subjects, and I am sure that therapeutics have the same right to form special subjects for investigation. It will soon be seen that, for the purpose of attending the diseases of children, it is not sufficient to diminish and sweeten the doses administered to adults.

Of particular importance in the treatment of diseases of children is the regulation of their diet. It is well understood that infants nursed by their mothers will, under equal circumstances, thrive better than such as have been brought up by a wet-nurse, or by hand; that regular habits, cleanliness, and fresh air, contribute a great deal to their health and comfort; that the health, temper, and physical affections of the mother or nurse influence those of the infant; that their very pleasures, passions, and habits, will leave their traces in the nourishment and nature of the child. It is most important, therefore, to regulate the quality and amount of food to be taken by infants, and the time when it is to be given. Many irregularities or anomalies in the functions of the infantile organism will be removed or healed by attending to these subjects, as it is well known that, for instance, superabundance of fat, or casein, or want of sugar in the mother's milk, will bring on diseases of the digestive organs of infants. In such cases, a change in the diet is more important than any pharmaceutical remedy; many cases of constipation, for instance, in nurslings, are produced by the superabundance of caseous matter in the milk; it will appear in the hard fæces as white curdled flakes. The most reliable, and, at the same time, mildest remedy, is the addition of a portion of sugar to the breast-milk. I am in the habit of allowing the nursling a piece of sugar dissolved in a small quantity of water, to be taken immediately before each meal, in such a manner that the mixture of sugar and breast-milk is effected in the stomach.

Diseases of the digestive organs in infants and children are very numerous, and the rate of mortality produced by them is very large; moreover, the digestive organs suffer almost in any disease of any other organ, and the preservation of their function is, therefore, of the utmost importance, both as a prophylactic and healing agent. While the infant at the breast requires, under favorable circumstances, nothing but the breast, the amount of food must be diminished in the majority of acute diseases; the patient must frequently be refused the breast, which he will instinctively turn to to soothe his thirst and feverishness, and allowed water instead. Many attacks of fever are cured, that is, get well, under the influence of cooling beverages alone, without the addition of medicines; water, soda-water, or lemonade, being more powerful than they are. Many cases of indigestion will be cured by the addition of a little salt to every meal, or of a little vegetable slime to cow's milk, where there is a great tendency to gastric acidity and too rapid and hard coagulation of the food. Barley, with its large proportion of phosphates; oatmeal, with its amount of phosphates and mucine; arrow-root, with its superabundance of amylaceous matter, require their own individual indications in practice.

These remarks have been made to remind my readers of the fact that sometimes much can be done by apparently very little. We all know, moreover, that many patients will sooner recover their health if left alone to the powers of nature, than if fed on medicines. If such is the case in adults, it is the more so in infantile age. There is a great tendency in the nature of children to help itself; in no other age do so many diseases take their regular course and disappear without leaving any trace of their existence. In such cases the physician is but the observer of the process; in being satisfied with this modest position, he will prove the true physician who feels himself the minister of nature. Such are the cases in which the so-called expectant method is indicated; which have given rise to the nihilistic repudiation of all and any remedial agents, and which has formed the principal part of the curative feats of homœopathy. There are other diseases, however, the course of which would probably be a regular one, but which may be shortened by medicinal agents: they require medicines, first, for their direct effect, and further, as a prophylactic given for the purpose of avoiding any accidental coincidence with other diseases. Such a disease, for instance, is pneumonia in the infantile lung. It requires, in an otherwise healthy child, five or six days to take its usual course; we know that, but nevertheless are justified and obliged to give proper medicines, to avoid complications, remove the danger of excessive exudation, and relieve certain troublesome symptoms. In other affections, with apparently a very mild course, some dangerous symptoms will

sometimes arise suddenly, and require medicines; there are others which can by no means get well without their administration; and others which would either lead finally to destruction, or to recovery, without the administration of medicines, but in which prominent symptoms require their use, to relieve and comfort the patient for a certain period.

The infantile organism is a growing, and, as it were, an incomplete one. The organs are in full development, but not equally and harmoniously; others undergo a retrograde metamorphosis. This inharmoniousness of development explains a number of abnormal functions and diseases, and the rapid growth the necessity of constant action of the organs of digestion and assimilation. As disease constitutes the physiological function and structure of an organ under altered circumstances, and the organs alluded to are constantly at work, the many diseases of the infantile digestive organs, and the frequency of diseases generally, are well explained. Twenty-five per cent. of all children born in France die before they reach the age of a year, and more than sixty per cent. of all the deaths occurring in New York are in children of less than five years of age. Climate, age, and constitution of the parents; hereditary disposition to syphilis, scrofula, tubercles, insanity, epilepsy, etc.; the diseases peculiar to the infantile age; the irritability of the digestive and respiratory organs, and of the cutaneous and nervous systems, swell the number of diseases occurring in early age to a very large number. The general irritability of this age has always been known, and better known than understood; impressions are easily made on the infantile organism, by whatever cause. Thus it happens, firstly, that smaller doses of medicine will have the same effect which is produced by larger ones in adults; but secondly, also, that a rapid and decided effect is required to counteract the rapid devastations of disease. The individuality of the cases and a correct diagnosis will determine which of the two indications is present.

A number of authors have attempted to determine the doses of medicines for certain ages. They, for instance, uniformly declared that, if the dose given to an adult was one, that of a child under a year was from one-sixteenth to an eighth; from the first to the fifth year, from one-sixth to one-third; from the sixth to the fourteenth, from one-half to three-quarters; from the fifteenth to the twentieth, from four-fifths to one. There is no such uniformity. Not to speak of the difference as to constitution, development, and strength, in individuals of equal ages, we shall soon learn that a number of remedies are tolerated, or efficient, in but a very small, and others, in proportionately a very large dose, in the infantile organism.

I abstain from making any remarks on the mode of administering remedies to children, with the exception of this: that it is

not so unimportant in the diseases of new-born children to take in regard the taste of the medicine; for it is not true, as has always been stated, that new-born and very young infants show no action of the organs of taste; but that great care should be bestowed on the selection of the *corrigen*s. Many disorders of the digestive organs do not agree with the administration of the syrups so commonly used; they will add to the acidity of the gastric secretions, and disturb digestion generally. In the majority of diseases of the digestive organs, particularly in catarrhal affections of the mucous membrane of the stomach and intestinal tract, it is much better not to add a substance the transformation of which into acid is more than merely probable.

I. Opium.—A number of medical authorities object to the administration of narcotic remedies in the diseases of the infantile age. A large experience has shown, indeed, that they have sometimes been used to a great disadvantage, even to the destruction of patients. It has been said that narcotics greatly weaken the powers of the nervous system; that they prove injurious to the circulatory organs and general nutrition, by their diminishing the number of pulsations, and that they prevent the process of secretion on the mucous membranes, in the mouth, in the intestinal tract, and in the kidneys.

Such are, indeed, the effects of the narcotics; and those who favor and advocate their medicinal use have derived from these very facts, established by both physiological experiments and experience at the bedside, a number of indications for their administration. It is argued, then, that narcotics are invaluable in infantile diseases; they are particularly required in cases of exaltation of the nervous system, as, for instance, in neuralgic affections, (which, however, are very rarely met with in early age,) as well as to relieve pain in incurable diseases, and even pain in inflammatory affections, in which there is no proportion between the pain and the fever and other symptoms of inflammation. Again, increased secretion of the mucous membranes forms an indication for their employment. They are further recommended in all diseases in which the nervous system is prominently suffering, in either its centres or peripheric parts, from spasmodic affections, such as tetanus and convulsions of other nature; and are also much employed in cases of sleeplessness.

The latter indication is among the first to be confined to certain limits in the diseases of the infantile age. Children require sleep, and incline to enjoy it; they will sleep sufficiently, unless the functions of their system are somewhere disturbed. When they are sick and sleepless, the question is a very serious one whether the sensations of sickness ought to be kept down to such an extent as to enforce sleep. If this was the only effect of the narcotic, the indication might be followed up at any rate; but the

suppressed secretion of the mucous membranes, and the other consequences of the administration of the narcotic, might add a new pathological symptom to those existing. At all events, the circumstances of the case will have to be weighed in all its relations, before sleep is to be enforced by narcotics. As a general rule, sound sleep will not return, particularly in inflammatory and painful diseases, before the morbid process has commenced to take a favorable course.

The objections raised to the administration of narcotics in general have particularly been made to opium, the most powerful amongst them. It has been stated, and proved, that its action is a very strong, and at the same time a very uncertain one, in infantile diseases, and that its peculiar effect on the brain, producing sleep, somnolence, and sopor, may often give rise to sudden death. This is really so. Death has often ensued after the administration of opium in proportionately small doses, and it is good to bear in mind the memory of such untoward events. Dr. Kelso, for instance, reports a case in which a child, nine months old, was destroyed in nine hours after taking four drops of laudanum. In another case, a child between five and six years old died in thirty-six hours after having taken an amount of paregoric containing from three-quarters of a grain to a grain and a quarter of opium. In a third case, a child, aged seven months, was destroyed by a dose of paregoric equalling a quarter of a grain of opium. Dr. Taylor quotes the case of a child, four years and a half old, who died of a dose of four grains of Dover's powder, containing no more than two-fifths of a grain of opium; and Dr. Christison mentions an instance in which the administration of three drops of laudanum in a chalk mixture, for diarrhoea, to a stout child fourteen months old, was followed by coma, convulsions, and death, in about six hours. Even smaller doses have either proved fatal, or given rise to very serious accidents. Clarke has observed a fatal effect from half a tea-spoonful of the syrup of white poppies; and a patient of Marley's came near death from the same dose. Merriman, Ryan, and Pereira, have seen an unexpectedly strong narcotic effect on the administration of a single drop of laudanum; and the case of the death of a newly-born, from the same dose, is on record.

The number of these cases could be considerably increased by extracts from the literature of all countries. They prove that there is some uncertainty in the administration of opium to children, and render it worth while to look into its effects and dangers. Its effects are, as above stated, eminently those of narcotics in general. It relieves pain and removes sleeplessness; acts as an antispasmodic; is a powerful antiphlogistic, from its effects on the action of the heart and blood-vessels; and suppresses the secretion of the mucous membranes and the glands. All these

effects are of a secondary nature, they being under the control of the nervous system, which in infantile age stands in a somewhat different position to the whole system from that observed in adults.

We are hardly at liberty to say that in adults any organ or system of organs is the superior of the others. Except in a diseased condition of the system, there is, in advanced age, harmony amongst the parts constituting the body. Not so in children. What is considered an abnormal condition in adults, is frequently but too normal in early age. At all events, some superiority of the nervous system is well perceptible. The brain is, in proportion, the larger the younger the individual, and the almost monstrous proportion of the size of the head to that of the other parts of the body, at the time of birth, is but slowly counteracted in the course of the first years of life. Not only the size is in a different proportion to that of other organs and the body in general, the functions, some of them, at least, are even more so. There is scarcely any affection of the organism in which the nervous system would not readily participate. Convulsions will, in many young children, prove a very frequent companion of any feverish or inflammatory disease, and follow a number of peripheric irritations, which appear to be in no connection with the nervous centres, but through a single peripheric nerve. I need not dwell on this subject, nor did I intend saying anything but to direct the attention of my readers to the well known general impressibility of the nervous system in infantile age.

The symptoms produced by a large dose of opium are those of cerebral congestion. The results of post-mortem examinations, in cases of poisoning by opium, are those of congestion. But congestion, or rather hyperæmia, is known to be a very frequent occurrence in children; so much so, that many of them are always afflicted with or suffering from it. This shows, then, how small the boundary is between the physiological and pathological condition; for while it is by no means doubtful that cerebral hyperæmia may give rise to a number of severe symptoms, it is certain that a considerable amount of blood is found in the cerebral and meningeal blood-vessels of young children, in their physiological condition. This fact is explained by the peculiar formation of the infantile head. The brain is not contained in an osseous cavity, but the cranium is composed by a number of bones connected with each other by loose, movable bridges of fibrous tissue. These sutures will not ossify before the commencement of the second year of life. Up to this time there is not acting upon the blood-vessels of the brain and its membranes the lateral pressure of later life, produced by the immovable walls of the cranium. Thus, in any case of sickness in which the circulation is disturbed or obstructed in any distant part of the body, the brain in small

children is apt to act as a reservoir of the blood not permitted to enter or pass another organ. It is a peculiar occurrence that the brain has, as regards the distribution of the blood, the very same function in the infantile organism which is assigned the large glands of the abdominal cavity, liver, and spleen, in advanced life.

The dose of the medicament sufficient to produce congestion of the brain varies a good deal, according to the state of health, the temperament and constitution of the patient, and idiosyncrasies. Idiosyncrasies certainly there are perceptible in the action of this remedy as well as in that of any other. Medicinal agents and articles of food are not equally well tolerated by all individuals, and in a great many cases the individual capacity of tolerating opium has to be found out. That bad effects have been observed, is not doubtful; nor even that they have occurred with good observers and eminent practitioners. They will, however, be easily explained by such as have, perchance, met with exhausting vomitations after an indefinitely small dose of ipecac., or with copious salivation after a single small dose of calomel. I have, myself, effected a copious salivation in a healthy man by the administration of half a grain of proto-iodide of mercury, in a case where I have not the slightest suspicion of the drug having been decomposed. Thus, there is danger from even small doses of opium, but such only as will occur with any remedy endowed with powerful effects. This, however, is far from counter-indicating its administration, but ought to have the effect of rendering us cautious. We ought to stop the administration of opium as soon as contraction of the pupils takes place, and paleness of the face and somnolence set in. Nor ought we to commence by large doses. The late Schoepf Merei, the director of the Children's Hospital at Pesth, Hungaria, and afterwards Professor of Infantile Pathology in the Manchester, England, School of Medicine, and well known as a medical writer, prescribes opium very rarely to the newly-born; from the second to the third week, his medium dose is the hundred and twentieth of a grain; from three to six weeks, one-hundredth; from six to eight weeks, one-seventieth; from two to four months, one-fortieth of a grain. The action of a proper dose of opium is, according to Schoepf Merei, manifested half an hour after its exhibition, and lasts from three to six hours. He has seen cases of narcotism produced by the administration of opium; even two cases of death; but a moderate degree of narcotic action he has never seen to be dangerous in such cases where the use of opium has been distinctly indicated.

I may as well state here, that the doses of opium given by Prof. Schoepf Merei are just the same I have thought proper to give for a number of years. But the duration of its effect I have not found so long as he appears to have observed. The doses

mentioned I repeat about every three hours, and add, that up to this time I have not met with any untoward accident. Certainly, I have met with cases of moderate narcotism, but I have not yet been so unfortunate as to cause death by the medicine. Lastly, I wish to direct the attention to Schoepf Merei's assertion, that whenever opium has been really indicated, he has not been unfortunate in its administration. I go further, contending, as I have done in a lecture delivered a long time ago in the College of Physicians and Surgeons, (New York Journal of Medicine, September, 1859,) that whenever a medicine is really indicated, it is tolerated in large doses. Thus it is, that, in peritonitis, for instance, in children, we may at once resort to large doses of opium, availing ourselves of the discovery of Prof. Clark, as well in children as in adults, and following the example Prof. G. T. Elliot, published some years ago; thus it is, that in a number of cases opium will sometimes be tolerated in really immense doses. The case related by Percival, and quoted by Dr. John B. Beck, in "Infant Therapeutics," p. 19, is illustrative of this fact. A young man was admitted into the Manchester Hospital on account of a violent spasmodic attack which recurred periodically in the evening, and after trials of various remedies, doses of opium sufficiently large to mitigate the violence of the paroxysms were ordered; he took twenty-two grains every night during a week, without producing any soporific effect. On the eighth night he had no return of the spasms. He nevertheless took the opium, and in the morning was found dead. The effect, then, depends totally on the indication. As a general rule, it ought to be remembered that no medicine ought ever to be given without a strict indication; and, as I have stated, wherever the diagnosis is correct and the indications based on the distinct knowledge of a case, the corresponding remedies may be selected with boldness and confidence. I distinctly remember the case of a boy of twenty-two months, who had a very severe attack of wide-spreading, gastro-intestinal catarrh. Recovery did not take place in the usual time, and after a while the usual symptoms of enterohelcosis, ulceration of the follicular patches, showed themselves. The secretion and peristaltic motion of the intestines were such, that between twenty and thirty passages occurred day after day, week after week. In order to check the irritation, in fact, to paralyze, as it were, the muscular layer of the intestines, and to suppress the superabundant secretion, the use of opium, internally and in injections, was resorted to. Careful doses, a few drops of laudanum, daily, were commenced with. But this dose had no effect, and had to be increased daily; so much so, that that the patient took nearly three grains of opium internally, and six grains in injections, which he almost always kept every day. These immense doses had to be continued three weeks, until de-

cidedly favorable symptoms showed themselves, and then had to be diminished gradually. The same experience I have gained in a case of intestinal ulceration, resulting from typhoid fever in a girl of three years; she took as much as a daily dose of two grains of opium, for a week.

The question, why it is that such immense doses of opium are tolerated, is still an open one; for we cannot say that the fact based on experience, that when indicated large doses of medicines are tolerated, amounts to anything like an explanation. It is a statement which we ought to be aware of from a merely practical point of view, but nothing else. If it is true that a bad article only is tolerated in large doses in inflammatory diseases of the abdominal organs, why is it that we never hear of so large doses required or taken by a person suffering from sleeplessness alone? Objects of experience, there are enough in the practice of every physician, and nevertheless no large doses are ever given for the purpose of forcing sleep. Or is the cause of the large doses of opium being tolerated thus, that it passes the intestinal canal without being absorbed? But is the stomach, in cases of intestinal ulceration of the kind mentioned above, any the less capable of absorption? Are not its digestive powers in this very disease immensely increased? And is it not a fact which every one is aware of, that the immense loss of secretion from the intestinal mucous membrane is barely made up by the introduction of immense quantities of nutritious food?

After these remarks, I proceed to lay before my readers a short synopsis of the affections of infantile age in which I have administered opium, besides those alluded to above. I beg permission to state, that I have not at all pretended, nor desired, to write an elaborate article on the subject, but to enumerate a number of diseases and symptoms in which I have found the use of opium not only pardonable, but useful and necessary.

1. *Cerebral Irritation*.—In spite of what I have said myself on the frequency of primary or secondary hyperæmia of the brain and its membranes, and although the effect of opiates is apt to show itself first in cerebral congestion, I have given small doses of opium in a number of cerebral symptoms. Genuine diseases of the brain are not so very frequent, as could be supposed from the indisputable predisposition; nor are all the cerebral affections occurring in the course of the other diseases of other organs depending on considerable anatomical alterations. A number of these are really nothing but the results of cerebral irritation, which does not require, and in many instances even counter-indicates, the use of antiphlogistics. This is so well known, that I feel satisfied with alluding to it. Without a correct diagnosis of the condition of the brain, opiates are not advisable; but I desire this principle not to be forgotten, that without a correct diag-

nosis, no powerful remedy ought to be administered; and less than any others, antiphlogistics and antiplastics, so readily resorted to in every and any cerebral complaint. The general impressibility of the nervous system in infantile age, both central and peripheric, is an undoubted fact; we observe a number of nervous symptoms in which we are unable as yet to discover any anatomical lesion, either their central or peripheric; we know even, that the majority of attacks of convulsions in infantile age are reflected, and we are therefore justified in assuming that a central organ receiving such impressions and irradiating them again to its periphery, must occasionally be in a thorough state of irritation, without intense anatomical alteration. In such cases, the diagnostical differences of which are stated by the books, I mostly rely on the use of small doses of sulphate or acetate of morphia, or codeinum.

R—Solut. morph., Magendie, gtt. v.
Aq., $\frac{3}{4}$ j.

M. D. S.: Three or four times a day, half a teaspoonful, to a child of half a year, or a year of age; or,

R—Codeine, gr. j.
Aq., $\frac{3}{4}$ iss.

M. D. S.: Half a teaspoonful three or four times, or more.

2. *Catarrh of the Stomach and Intestines.*—There is, in the catarrhal affections of the mucous membranes generally, and especially in those of the alimentary canal, an element of much trouble and perplexity to the practitioner. I mean the intense irritation existing from the very beginning of the affection. While the majority of such cases are simple catarrh, they cannot run their course without influencing the trophic and sensory nerves, and being influenced by them. Reflected action will spring up in the muscular layers, and increased peristaltic motion is the next result. In all such cases opiates are decidedly indicated. I scarcely ever treat either an acute or chronic catarrh of the intestinal canal without opium, as the occurrence of the affection, without greatly increased motion, is not possible. At the same time, the remedy has a decided influence on the secretion of the follicles of the mucous membranes and glands generally: not directly, it is true, but by means of the brain and its peripheric nerves. I add it, usually in the form of Dover's powder, to calomel, (which I use but exceedingly seldom, I may say scarcely ever,) subnitrate of bismuth, tannic acid, and subacetate of lead. I prefer Dover's powder, because the doses of opium must necessarily be small, and the division of the powder of opium would be rather difficult, or sometimes uncertain, and because of the, at times, desirable addition of ipecac.

R.—Submuriat. Hydrargr., . . . grs. iv.–vj.
 Pulv. Doveri, . . . grs. iij.
 Cret. præparat., . . . 3 ss.

M. f. pulv., div. in p. æq., No. xii.

D. S.: A powder every two hours, for a child from six months to a year.

R.—Subnitrat. bismuth, . . . grs. viij.–xij.
 Pul. Doveri, . . . grs. iij.
 Cret. præparat., . . . 3 ss.

M. f. pulv. div. in p. æq., No. xii.

D. S.: As above.

As a general rule, I never use tannic acid and subacetate of lead in recent cases of catarrh of the alimentary canal, and have not been in the habit of ever using it in affections of the stomach, (except the latter, in cases of hæmatemesis.) The cases in which I resort to it are usually those of chronic catarrh of the intestine, (tannic acid principally in that of the intest. colon,) and mostly in children a little older; in such, the dose of the opium has to be increased according to circumstances.

R.—Acid. tannic, (Subacet. plumbi,) . grs. viij.
 Opii, . . . grs. j.
 Cret. præparat., . . . 3 ij.

M. f. pulv., in p. æq., No. xvi.

D. S.: A powder every three hours, to a child of 3 or 4 years.

In fresh cases of gastro-intestinal catarrh, which have got well after a simple treatment of the first-mentioned kind, I almost always follow it up with a simple opiate, in order to counteract the irritation, which by itself is able to again give rise to a copious secretion of the mucous membranes.

R.—Laudan. liquid., Sydenham, . . . gtt. x.
 Mucil. g. arabic, . . . 3 ijss.

M. D. S.: A teaspoonful every 2–3 hours, to a child of eight months or a year old.

Whenever there appears to be a necessity to apply opium to the intestinal canal locally, by means of injections, I should urge the utmost caution, and but small doses. Opium is, like quinia and some other substances, readily absorbed by the rectum, and ought not to be given in any larger daily dose than internally, provided that it is well injected and not soon ejected. DeWees may be practically right in the majority of actual cases, and taking into account the expulsive tendencies of the patient and carelessness of nurses, in recommending the triple or quadruple dose per rectum; and Beck—the double. But I again state, and lay stress on it as an indisputable experience, that opium will show its general symptoms by the same, and no larger dose, as in its internal administration; while, for instance, the subcutaneous administration of morphia (which, however, I have not resorted to

in infantile practice) is more efficient and requires a smaller dose than any other mode of using it. As to opium injections, I prefer to repeat them frequently with small doses of laudanum, and to watch the effect, than to give large doses at once, which might prove dangerous or inconvenient; dangerous from its general effect, inconvenient and troublesome from the sudden suppression of local secretion.

In simple and complicated catarrh of the stomach, the administration of carbonates, or muriatic acid, or bismuth, will usually suffice. But in cases of incessant vomiting, which itself will increase the hyperæmia, and may even give rise to hæmorrhage, sedatives are necessary. Now, morphia, opium, and laudanum, will sometimes produce vomiting. Extract of opium and tinct. opii camphor, are generally better tolerated, but the taste of the latter is peculiarly disagreeable to some children; besides, there are cases of irritability of the stomach in which absolutely nothing will be kept except the mildest and blandest remedy possible, besides ice. In such cases, codeinum or codeia acts admirably in daily doses of from half a grain to a grain, according to age. I remember several cases in which nothing appeared to soothe the irritation of the muscular layer of the stomach but codeia, and some in which I had to continue for some time to give a dose before each meal.

3. *Laryngeal Catarrh*.—In those cases of catarrhal affection of the larynx called pseudo-croup, or laryngitis spastica, I have always used opium in occasional doses with the best result, and recommended them accordingly, in a former lecture on the subject. Certainly, I should not think of giving them during the attack of dyspnoea befalling children suddenly during night, and making the frightful *impression* of pseudo-membranous croup—the first and only thing to be thought of is an emetic, if anything—but the irritation and spasm attending this catarrh is best relieved by a dose of opium, given at bedtime. The spastic affection attending a simple laryngeal catarrh illustrates exceedingly well my remarks on the irritation of the mucous membrane of the intestines. The local affection of the mucous membrane of the larynx is of very little account, and would certainly not give rise to any serious symptoms, but for the narrowness of the organ and the implication of a large number of small muscles. But, as it is, a good dose of opium is required before the time the attacks will generally occur. Dover's powder, to grs. ijss, in a single dose, given at bedtime to a child of three years of age, will generally succeed in procuring a relief from the spastic attack, and a good night's rest, and will afford time for the effect of such other measures as are deemed proper.

From some remarks made above, the selection of the opiate most appropriate in an individual case will, perhaps, not be very

difficult. I therefore abstain from making any addition. At all events, but the general rules can be laid down in expositions of so general a character. I desire, however, to add a very few words on the counter-indications to the use of opiates in infantile practice. It is certainly of at least the same importance to know what remedies to avoid, than which to employ, especially when we expect to do either the right thing, and that entirely, or nothing at all.

A principal counter-indication, in my opinion, is an uncertain diagnosis. I should never propose the use of opium in a cerebral affection before I should be sure whether the case is one of simple irritation, or of congestive or inflammatory character. We must confess that many cases are not diagnosticable, with our knowledge hitherto acquired; but then we better not resort to powerful remedies, which may prove as dangerous as useful, if we do not know which. We can afford, and must be permitted to be ignorant, but we can neither afford nor be permitted to do harm. Nature will have less trouble in overcoming a disease without our support, than she can come off victorious from a fight against the disease and doctor at the same time. And there is no vigorous constitution nor a blooming life that a doctor cannot ruin and destroy, by not indicated, or contra-indicated remedies.

Hyperæmia of the brain and meninges, both active and passive, are strong contra-indications. Enough has been said of them.

Exhaustion and collapse are generally positive contra-indications to the administration of opiates. They are sedatives, and very powerful as such. Collapse and exhaustion naturally require stimulants and restoratives. In such cases, the prevailing local disease is generally of less importance in pointing out the treatment than the general condition of the patient, and such are eminently the cases which prove that the individual patient, and not an ontological disease, are the subject of treatment. If we cannot avoid the use of opiates in such cases, the greatest caution ought to be preserved; and they ought never to be resorted to without at the same time taking measures of rallying the patient. Such cases will occur in gastro-intestinal catarrh with rapid collapse, as often seen during the warm season.

The complication of severe intestinal catarrh with a pulmonary affection, particularly broncho-pneumonia, is a very serious, and sometimes fatal one. While the intestinal catarrh would probably require the use of opium, it will hardly be possible to give regular doses of this drug in this complication. I have gained the impression from what I have observed, that the oppression and dyspnoea will be aggravated by regular doses of opium in the first stage of pneumonia, and the only purpose for, and mode in, which I now give opium in cases of the above description, is an occasional dose to procure rest.—*Amer. Med. Monthly.*

On the Therapeutical Employment of Oxide of Zinc.

By S. WATERMAN, M.D.

Oxide of zinc is known to be a powerful therapeutical agent, yet its peculiar mode of action upon the human organism, and the various diseases in which it finds a rational application, are by no means yet fully understood. In the U. S. Dispensatory, the account given of this article is meagre and unsatisfactory. Some of the European Pharmacological works give a more minute description, but also without by any means exhausting the subject. I shall probably not state much that is new to *all* the readers of the *Monthly*; but from the observations which I have had the opportunity of making, I feel called upon to direct the attention of the profession to this medicine.

Oxide of zinc exerts a powerful sedative or soothing influence over the brain and the ganglionic nerves. Whether this influence is produced by direct action of the zinc upon the brain; whether it acts by a sort of revulsive influence, by transferring cerebral irritation to the plexus of the stomach, it is not possible as yet to tell. Its operations seem to be exceedingly mild, and free from after-effects, such as are observed after the use of opium, and the kindred narcotics. In all cases where these narcotics are contra-indicated in diseases of the brain, zinc may be given, and in many of these cases its effects are positive and lasting; so that I have often considered it worthy of the title of "the opium of the brain." Its ability to soothe vascular excitement dependent upon cerebral and nervous irritation cannot well be doubted; whilst it possesses equal power to allay and calm the irritation of the brain and ganglionic nerves, unaccompanied by inflammatory action of these tissues.

It has proved itself useful to a limited extent, also, in inflammation of the brain and its membranes, but in a manner less marked and positive; and I think it, therefore, less worthy of confidence in these diseases.

From its action as described above, it is rational to expect beneficial results from its exhibition in the following diseases; and these expectations are borne out by actual trial and observation:

1. *In Delirium Tremens*.—Indeed, when all other remedies seemed to fail, when opium and its kindred narcotics had been unable to make any impression, and a fatal issue seemed unavoidable, oxide of zinc has in several instances rendered me such signal service, as fully to justify the confidence I feel in its therapeutical power. It need not be given in large doses even here; two to three grains every two hours are sufficient. It may be combined, if necessary, with opium or other remedial agents; and

its use should be continued for some time even after the delirium has been overcome.

2. In *Eclampsia Infantilis*, after the fits have been broken by the free use of chloroform, zinc will be found a very serviceable agent to control the cerebral and nervous agitation, which almost always still harasses the little patient for a short time. I have often combined oxide of zinc, in grain doses, with calomel, digitalis, and pulv. scillæ. Its effects have been thus most gratifying, and the impartial practitioner can certainly readily verify the truth of the observation. As in the former disease, its use ought to be continued after the convulsions themselves have disappeared.

3. In the *Eclampsia* happening during pregnancy or labor, or menstrual irregularities, oxide of zinc acts beneficially upon the sensorium, with or without the administration, at the same time, of opium and calomel; especially in those cases where the convulsions originate from a high state of nervous sensibility, as is the case in subjects to hysteria, in its various forms. After the employment of chloroform, zinc will be found to exert its sedative influence in a most positive manner. I have given two or three grains per dose every two hours, and would not advise a larger dose. In convulsions produced by plethoric habits, its effects are less reliable; whilst in convulsions arising from uræmic toxication, its effects have not been sufficiently tried to warrant any positive statement in its favor.

4. It will be found a most reliable agent in the various forms of *hysteric convulsions*, depending, as they do in most cases, upon inordinate action of the nerves and their centres. It is in these cases that its influence over the plexus of the stomach is most strikingly verified.

5. In the *exanthematic diseases*, when the eruption is accompanied by cerebral irritation, and even by convulsions, oxide of zinc has long been known to exert a soothing effect upon the nervous centres, and has been used by the most experienced European practitioners.

6. I have treated a few cases of *epilepsy* and a few cases of *chorea* with zinc. I have not had sufficient opportunity to watch its influence, but believe it to be, as stated by various practitioners, from time to time, for more than half a century, a very efficacious remedy in some cases; more especially, it is true, of chorea than of epilepsy.

7. European writers recommend it as an excellent remedy in asthmatic difficulties and whooping-cough; but I have no experience to offer on this head, nor on the three following.

8. In England and in this country it has been very highly extolled against the night-sweats of phthisis, and as useful in all cases of profuse perspiration.

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9. It has also been well recommended against worms, and still more against chronic dysentery.

10. To complete the list, I must yet mention that it is reported to have cured some of the most obstinate cases of intermittent fever.

The external use of oxide of zinc—unsurpassable in its satisfactory results, as it sometimes is—seems to be well enough understood by the profession generally.

In the estimate I have placed on the oxide of zinc, I have relied strictly on the results of my own practice. I have the notes of a number of cases in point, which I withhold from publication, only not to increase the length of this article; and I urge on all physicians to contribute their quota to our knowledge on the subject, to the end that its physiological effects and therapeutical uses can at last be definitely determined.—*Amer. Med. Monthly.*

Sylvester Method of Restoring Suspended Animation.—This method, which has supplanted with many, the Marshall Hall method, is thus described:

“Dr. Sylvester’s method is to lay the patient on his back, and having pulled the tongue forward, to draw the arms slowly up over the head, by which means the ribs are elevated by the pectoral muscles, and inspiration is produced; the arms are then to be brought down to the side of the chest, which they are to compress in a slight degree. These movements are to be repeated as slowly as in the Marshall Hall method, and, it is said, they give a more complete change of air to the lungs.”

Renunciation of Homœopathy.—The Medical and Surgical Reporter says that Dr. John C. Peters, late Editor of the North American Journal of Homœopathy, has renounced that system, and declares that he does “not believe or practice according to any one medical dogma or exclusive system.” He says “he commenced the study of medicine under the impression and with the fervent hope that Homœopathy, in its future and rational development, would supply all that was deficient in medicine,” but never “has been a convert to the use of infinitesimal doses,” “always felt absolutely degraded when making, what I conceived to be, necessary trials with them; that I was doing something foolish or wrong when giving them, and trifling with the lives of my friends and patients to depend upon them in serious attacks, and with their time and comfort in milder attacks, and have been more and more successful, in strict proportion, as I gradually increased upon the very small quantities which I first used, and in proportion as I departed from a slavish adherence to one system of medicine.”

PART III.

RECORD OF MEDICAL SCIENCE.

Lectures on Chancre, delivered at the Baltimore Infirmary.

By WM. A. HAMMOND, M.D., *Professor of Anatomy and Physiology in the University of Maryland.* (Concluded.)

LECTURE III.

Gentlemen: In the last lecture I considered the treatment of the soft chancre as it runs its regular course, and of two of the accidents to which it is liable—inflammation and ulceration. I told you that the non-indurated or simple chancre was altogether a local affection, and one that required only local means to arrest its course. You have seen many cases in this infirmary which abundantly prove the truth of this view. You have seen chancres which had taken on a strong reparative action, and which were therefore no longer of specific character, get well under the simple application of a solution of tannin in water. They would have been cicatrized without anything. The astringent only accelerated the cure. You have seen, when the chancre was still progressing, the sulphuric acid and charcoal paste applied, and you have witnessed how, after a few days, the slough became detached, leaving a healthy sore exposed which rapidly healed. Under neither condition was any constitutional treatment employed, unless when from debility a tonic was required, and this was always iron and quinine.

It may seem like too much repetition, but I feel that I cannot too frequently urge upon you the uselessness, the impropriety, of administering mercury in the treatment of the simple chancre. I am sure that the cure is retarded by it, and that a disposition to phagedena is often engendered by its action; and yet how uniformly in this country is mercury given for the treatment of this class of venereal ulcers. A patient has a chancre or a sore of some kind on the penis, and without endeavoring to ascertain its character, the bi-chloride or the protiodide, or some other preparation of mercury, is prescribed, and perhaps mercurial ointment is in addition rubbed every night into his thighs. Salivation is produced, the chancre does not heal, and more mercury (or another course, as it is called) is administered. At length the gums become horribly sore, ulcers appear in the mouth and throat, pains in the bones are produced by the least change in the weather, and perhaps an eruption makes its appearance on the skin. The

chancre, if it has not got well in spite of the treatment, is now exceedingly liable to phagedena. If this occurs, of course the danger is very much increased; in any event, the miserable victim is broken down in health, and the space of his life materially shortened.

Look at the man in St. John's ward, whom we have seen daily for the last month. Ulcers in his nostrils, part of his superior maxillary bone gone, and a large hole existing in consequence in the roof of his mouth. Scarcely a tooth in his head, his gums ulcerated, his breath foetid, his general health almost destroyed. And yet this man never had any venereal sore but a soft chancre, and consequently has never had constitutional syphilis. But he has taken mercury almost constantly for the last two years, and hence his deplorable condition. Happily he is improving under the use of the iodide of potassium, which, as you know, removes mercury from the system with great certainty.

We cannot wonder at this indiscriminate employment of mercury in chancres. It is advised in almost all the text-books of surgery in use in this country, and has been handed down from generation to generation as a principle of medicine of inestimable value. He has a chancre, therefore he must be mercurialized. Let us rather adopt the maxim: He has a *soft* chancre, and therefore he should *not* be mercurialized.

In the next place I called your attention to the treatment of the inflamed chancre, a condition which, as I mentioned to you, is too frequently induced by insufficient cauterization—irritation in fact without cauterization. Sulphate of copper, acetic acid, and nitrate of silver, will not do to use as escharotics when the chancre is fully formed. They only add to the irritation already existing. When this state is present, heat and moisture, properly applied, are the principal agents to be employed. If gangrene occurs, tonics and stimulants internally, with mildly stimulating applications to the part, are to be had recourse to.

Excessive ulceration was next considered. In the serpiginous form I directed your attention to the use of iodine as a remedial agent capable, in my opinion, of exercising a greater curative influence over this form of the disease than any other with which I am acquainted.

In the present lecture I wish to bring before you the principles which should guide you in the treatment of phagedena, and the buboes originating from soft chancres.

I have already dwelt sufficiently on the causes of phagedenic action, and the pathology of this complication of the soft chancre. The treatment of it requires promptness and decision on the part of the surgeon. With these qualities on his part it can generally be arrested. The first thing to be done to a phagedenic chancre is to entirely destroy the morbid character of it. This is done by

some one of the escharotics I have mentioned, freely applied. The sulphuric acid and charcoal paste is that which I prefer. The whole surface of the sore is to be covered with it, and the surrounding skin as far as the diseased action appears to extend. You already know the action of this paste, and I will not, therefore, dwell longer upon it. Do not try any milder caustics; they will be unavailing, and but increase the morbid action.

But there is something else to be done. Phagedena most generally depends upon a constitutional difficulty. Mercury has been given to excess, or the individual is scrofulous, or he has become depressed mentally and physically by his affliction, or he has lived improperly. It is therefore necessary to rectify all this. Good diet should be given, plenty of fresh air should be afforded, and, above all, some one of the preparations of iron should be administered. I have tried nearly all of them, and cannot but agree with Ricord that the potassio-tartrate is the best. It seems to be almost a specific against phagedenism. The formula which I generally use is

R. Ferri et potass. tart. ℥ i .

Aquæ ℥ x .

Of this I give half an ounce three times per day, and at the same time direct the diseased part to be kept constantly moistened with it both before and after the detachment of the slough caused by the caustic paste already mentioned.

But you will find cases that resist all treatment, and in which the patient, worn out by the discharge and irritation produced, gradually succumbs. I have seen several such, and terrible cases they were. In all of them I am sure the progress of the disease might have been arrested by the treatment I have recommended, if they had been subjected to it sufficiently early. Everything depends upon prompt and decided action. When the disease has acquired much headway, when the phagedenic surface is several square inches in extent, it is a difficult task to stay the morbid progress. But the principles of treatment do not vary, and no matter how large the ulcer, I should not hesitate to apply an effectual escharotic to it. The irritation would be great, but might be subdued by opium or chloroform. I cannot conceive of its leading to worse results than the unchecked phagedena. The potassio-tartrate should also be used as before directed, but in somewhat larger quantities—as high as a drachm for a dose—and the strength should be supported with alcoholic stimulants.

Ricord mentions that in two cases of phagedenic chancres which came under his notice, the subjects were attacked with erysipelas, and in consequence cured of the first named disease. Without therefore positively asserting it, he is disposed to regard erysipelas as a specific for phagedena—rather a bold supposition to form from two cases. However, there may be something in it. No

one else, to my knowledge, has observed anything of the kind, nor so far as I am aware noticed the occurrence of the two diseases in one person. We should not reject M. Ricord's hypothesis, but we should be careful about accepting it without further proof.

And next, in regard to the treatment of the buboes produced by the simple chancre. These, as you will recollect, are of two kinds; one a simple non-virulent adenitis due to irritation, the other a specific abscess caused by the absorption of the pus from the chancre. The one capable of resolution, the other always suppurating. You have seen many examples of both. There are several now in the house which you have had ample opportunity for studying, and to which I have daily directed your attention.

Now the fact that the simple adenitis may terminate in resolution, whilst the virulent bubo always suppurates, must be our main guide in the treatment of these affections. It is, therefore, important, if possible, to be able to distinguish one from the other at the earliest possible stage of their progress.

I am not sure that this can always be done, but there are some circumstances which are of considerable service in assisting us to form a correct diagnosis.

In the first place, the simple adenitis advances slowly, and is generally unattended with pain. The gland enlarges, but evinces a disposition to remain in this condition. It is soft, presenting, therefore, in this respect a striking difference from the indurated bubo of the infecting chancre, to which I shall, in a future lecture, ask your attention. Should it suppurate, it does so indolently; and when the skin over it breaks, or is open, the pus is discharged without the edges of the wound becoming inoculated. Sometimes the gland continues to occupy the cavity, as in the case in the man now in St. John's ward. It must be destroyed before the ulcer can heal.

The virulent bubo, on the contrary, is almost invariably of rapid growth; suppuration takes place early, and the inflammatory action is accompanied with considerable pain. The integument covering the abscess, if not punctured, sloughs, leaving a large open sore—a true chancre. The pus from this bubo is, of course, inoculable. You saw me not long since demonstrate this fact to you. The gland is destroyed early, and a cavity of large size, requiring a long time to be filled up, remains.

As I have said, the ulcer left after the opening of the virulent bubo—the bubo of absorption, as Ricord calls it—is a true, soft, non-infecting chancre, one liable to phagedena in perhaps a greater degree than the original chancre. Why this is so I do not know, unless it is that by this time the patient's constitution has become broken down, or the large quantity of mercury which in all probability he has taken, has commenced to exercise its deleterious effects upon his system. So far as my experience

goes, I have seen many more phagedenic chancres in the groin than on the penis of the male or genital organs of the female.

You see, therefore, how different must be the treatment for the two species of bubo under consideration. For the first, the simple adenitis, discutient lotions, such as that of the sub-acetate of lead or the chloride of ammonium, should at first be tried. These may be conjoined with pressure, not with a truss, as some surgeons recommend, for it is apt to lead to ulceration, and almost always increases the pain; but by means of a graduated compress held in place, and firmly too, by the groin bandage which you have so often seen in operation here. Another way of employing pressure is by means of the collodion. The swelled gland is covered daily with three or four coats of this substance applied with a camel's-hair pencil. This dries almost as soon as it is put on, and soon forms a dense covering. As in drying contraction takes place, it exerts no small amount of pressure. The objection to it, however, is, that it does not admit of the use of any other local application. If you are disposed to trust to pressure alone, it does very well.

The tinct. of iodine, or the ointment, are also very valuable applications, and frequently of themselves cause the restoration of the enlarged gland. For some years, however, I have employed a preparation of iodine which possesses very decided advantages over either the tincture or ointment. You have seen it frequently used here. It is a solution of iodine in glycerine. To one ounce of glycerine I add twenty grains of iodide of potassium, and then dissolve in it forty grains of iodine. You can alter the proportions, if you please, so as to make it either stronger or weaker. The iodide of potassium increases the solubility of the iodine, and should be about half as much in quantity.

The iodide of lead ointment is also a very valuable application to be made to these inflamed glands. A portion as large as a pea is to be rubbed in night and morning. I had several times seen buboes of the non-virulent kind disappear under the action of this agent.

If, however, all efforts to affect dissolution should fail, are we to allow it to open spontaneously, or are we to incise it? I think there can be no doubt that the latter is the preferable course, and it should be performed early in order to save as much of the skin as possible. If the abscess is allowed to break, the skin almost always sloughs to a considerable extent, and an ugly-looking sore is left, which only heals after a long time has elapsed.

In regard to the character of the incisions I prefer Vidal's method, of numerous small ones made horizontally into the base of the tumor, to an extensive cut laying it open its whole length. The advantages have been, in my hands, that the healing process was much more rapid, and I have never witnessed the formation

of sinuses which some writers state so frequently follow this method of operating. You have seen this plan pursued here with the best results.

But a method which I prefer even to the foregoing is one which I have employed for several years past with very excellent results. It consists in passing several small sutures through the back of the swelling. These are formed of several strands of silk, and are inserted with a common needle. The pus drains slowly off, and a mild inflammatory action is produced by the sutures in the walls of the abscess. Pressure is applied, and as the pus escapes the walls of the cavity are brought in apposition. The sutures are now removed, and it generally happens that adhesion takes place, and that the cavity is thus entirely obliterated.

I have not had an opportunity this season of showing you the beneficial results of this method. Some of you, however, will doubtless recollect the case in which it was employed last year during the short time that I had the surgical charge of the infirmary. The patient entered the house with a very large abscess of the groin, the result of a non-virulent bubo. I passed two setons through its base at right angles to each other, and applied pressure. In two days the pus had entirely escaped, and in a week afterwards the cavity was entirely obliterated, and the patient, a sailor, was discharged. I saw him a few days since in the street, and he informed me he had had no further trouble.

It is not every case that admits of this treatment, for the reason that frequently the swelling is not sufficiently elevated above the surrounding parts to allow of the management of the needle with facility. It ought to be passed through the base of the abscess, and not through its summit, otherwise sloughing is apt to occur, as was the case in some of my early trials.

The danger of opening a bubo would not perhaps strike you as being worth mentioning; and when we think of the frequency with which the operation is performed with impunity, the risk certainly cannot be regarded as very imminent, and yet I once lost a patient, a soldier, all from this very simple affair. He had a large bubo, which I laid open its full length, (it was before I knew the advantages of the methods I have mentioned). Pyæmia followed, and he died with all the symptoms of purulent absorption. After the death abscesses were found in his liver, and collections of pus in his lungs and spleen. This is the only instance of the kind with which I am acquainted, and I mention it more as a surgical curiosity than anything else. Pyæmia has, however, followed the opening of other abscesses, and of course there is no reason why the operation on sailors should be specially exempt from its occurrence.

So much for the simple adenitis, the non-virulent bubo, the pus of which is laudable with no specific properties, and therefore

not inoculable; next we have the chancreous bubo, the pus of which is specific, and from which true chancres may be produced, to consider.

As I have already told you, this bubo is produced by the direct inoculation of the lymphatic gland with the chancreous matter carried to it by the lymphatic vessels. As Ricord has emphatically said, the abscess formed is a depot of chancreous pus. The main facts in regard to its symptoms and pathology are, that it progresses rapidly, and it is generally attended with pain, and it invariably suppurates. The treatment, therefore, should differ materially from that required for the other variety. There is no use in applying discutient lotions; no use in iodine; no use in pressure—all in fact are injurious. What you want to do is to hasten suppuration. This is accomplished by heat and moisture. The chamomile cataplasm is the best vehicle for these agents I know of. Other poultices will answer, or even warm water applied by means of several folds of flannel, and covered with oiled silk, will relieve the pain, and bring matters to a head.

After you are satisfied that pus is formed in sufficient quantity, that is, when the whole lymphatic gland has suppurated—a point which you will determine by your tactile sensibility—lay the abscess open so as to allow the freest channel for the escape of the pus. And now comes the main part of the treatment.

You may be doubtful whether or not you have a virulent bubo to manage. If you see the bubo from the first, or if you can rely upon the account of it given by the patient, you are not likely to be mistaken. In any event you will lose nothing at this period by charging the point of the lancet with the pus from the bubo, and inserting it into the thigh of the patient. If you have a chancreous bubo to deal with, a chancre will be produced at the point of inoculation. This is first evidenced by the redness circumscribing the inoculated spot, and which is present after the first eighteen hours. At about the fortieth to the forty-eighth hour a little pustule is formed, with a black summit caused by extravasated blood. This is the chancreous pustule, and is to be cauterized with nitric acid, Vienna paste, sulphuric acid, and charcoal paste, or with what is less severe and answers perhaps equally well at this stage, nitrate of silver freely applied.

Having obtained an affirmative result from the inoculation you have no longer any doubt as to the character of the bubo, or, as it is now, the ulcer. You have in fact a true soft chancre to treat, one which is peculiarly liable to be attacked with phagedena. You should, therefore, at once proceed to apply the escharotic paste freely to the bottom and edges of the sore. Undoubtedly this causes severe pain, but this does not usually last more than three or four hours, and is not greater than that caused by the nitric acid or Vienna paste. After the paste is applied, the part

should be covered with lint spread with simple cerate and bandaged. In the course of ten days the paste and slough come away, and you have a healthy non-specific ulcer left, which heals without difficulty.

You have seen this process gone through with here, and I have already sufficiently described it, so that there is no necessity for me to enlarge more upon its operation. If you do not destroy the specificity of the chancre it will almost certainly enlarge.

You perceive that I prefer to open this form of bubo with a long incision. The multiple openings of course are not applicable, for the reason that they become inoculated, and you have half a dozen chancres to treat instead of one, and, moreover, you have no opportunity of applying the paste with advantage unless you can get free access to the interior.

This concludes all that I have to say to you at present relative to the soft chancre and its complications. In the next lecture we will enter upon the consideration of the indurated and infecting chancre.—*Am. Med. Times.*

On the Use of Euphorbia Prostrata as an Antidote to the Poison of the Rattlesnake. By Dr. B. J. D. IRWIN. (*American Journal of the Medical Sciences.*)

Dr. Irwin's attention was drawn to the circumstance that very few of the native inhabitants of Mexico lost their lives from the bite of the rattlesnake, although this reptile is very abundant in the south and south-western regions of the United States. After making numerous inquiries, he found that although injuries from poisonous reptiles were very common among the natives, they had an efficacious antidote in a substance called *gollindrinera*, a plant of a delicate appearance, found growing abundantly throughout the southern portion of Texas, New Mexico, Arizona, and Sonora. This plant is the *euphorbia prostrata*, growing plentifully in dry, hard, sandy places, having long filiform reddish stems, and abounding, like the other *euphorbiaceæ*, in a milky juice, which is said, however, not to be of an acrid character. Dr. Irwin found that the medicinal properties existed in the milky juice of the stem, root, and leaves; but the preparation usually employed was the fresh juice extracted from the plant by bruising it in an iron mortar and diluting it with a considerable quantity of water. The physiological effects of this juice are emetic and cathartic when given in large quantity. Dr. Irwin's experiments were made upon dogs, which were purposely bitten by the rattlesnake, and afterwards had the juice administered to them. The results were most striking and satisfactory, and the animals appeared to be rescued from impending death by the employment of the juice. The effects were the same in all the cases except one,

in which the antidote appears to have been given too late. Dr. Irwin has heard of many cases of rattlesnake bites cured by the Mexicans by the use of this plant, the administration of which is unattended with any danger to the animal economy. It appears also that other varieties of the *euphorbiaceæ* enjoy a reputation as remedies against the poison of noxious reptiles, especially the *Euphorbia capitata*, *E. corollata*, *E. palustris*, and *E. villosa*.—*Brit. & For. Med.-Ch. Review*.

On the Employment of Iodine Inhalations in Pulmonary Phthisis. By Dr. SIMON. (*L'Union Médicale*.)

The treatment of pulmonary consumption by iodine is very frequent in Belgium, and has been especially recommended by M. Chartroule. Under his directions twenty-eight patients in the hospital were treated by the inhalation of the vapor of pure iodine, and of this number only eleven could be said to derive no benefit from the treatment. In these unsuccessful cases, the pulmonary lesions were not modified, but still the symptoms were not aggravated in any case. In opposition to the statement that iodine vapor produced hæmoptysis, it was found that pulmonary hæmorrhage ceased more rapidly under this kind of treatment than under other plans which are more generally employed. Seventeen patients derived positive benefit from the iodine treatment, and this improvement was observed not only in relation to the general symptoms, but also to the pulmonary lesion itself, as was proved by percussion and auscultation. Out of the seventeen patients, four might be considered as actually cured. One of the cases of cure is the following:—A youth, sixteen years of age, entered the hospital in such an alarming condition that at first the physicians hesitated to submit him to the iodine inhalations. He was in a state of great emaciation, and his skin was almost constantly covered with profuse perspiration; he had diarrhœa, which had lasted for two months, and he had repeatedly suffered from hæmoptysis. There were very extensive indurations in the lungs, and at the apex of the right lung there was a cavity of some size, as was shown by the very obvious gargouillement. The expectoration was also characteristic. After resting a few days, this young man was subjected to the iodine inhalations, and all the symptoms which had appeared so serious were soon modified in a most remarkable manner. The general symptoms disappeared first, and the body recovered its plumpness with great rapidity. The perspiration, diarrhœa, fever, cough, and expectoration were soon relieved or removed, and six weeks after admission into the hospital the patient went out quite well.

Several other cases of the same nature are recorded from both the public and private practice of M. Chartroule, and in all of

them the beneficial effects of the iodine inhalations are remarkably exhibited. Dr. Simon, who relates the cases, attributes a great part of the efficacy of the treatment to the apparatus employed for inhalation, which, however, is not described in the paper. By this apparatus, it appears, a degree of precision is given to the treatment which consequently becomes the more efficacious, for the dose of the vapor may be estimated with exactness, and the remedy may be made proportionate to the severity of the disease and the strength of the patient.—*Ibid.*

On the Employment of Dover's Powder in the Perspirations of Phthisis. (Gazette Médicale de Lyon.)

This medicine has been recommended in phthisical sweating by M. Descamps, who has found it uniformly successful. It might be doubted, on theoretical grounds, whether the Dover's powder, being itself a sudorific, would be likely to check undue perspiration; but according to M. Descamps, the effect has even surpassed expectation, the sweating being suppressed from the first, and the success of this mode of treatment is proved by the results of experience during a period of eighteen years. The mode of administration recommended by M. Descamps is the following:—"We possess," says he, "several records of phthisical cases in which the perspiration was arrested up to the period of death. The powder was generally given in the dose of fifty centigrammes (a centigramme is .1543 of a grain) in the evening at different hours, according to that which announced the commencement of the sweating; and not only was it always observed that it prevented this symptom, but it also diminished diarrhœa, allayed cough, and predisposed to sleep. It sometimes happened that the powder was vomited; in such cases the dose was divided into two parts, one of which was given in the evening, and the other during the night, when the patient was awoke."—*Ibid.*

On the Remedies for Tape-worm in Abyssinia. By Dr. CURBON. (Bulletin Général de Thérapeutique.)

The remedies for tape-worm stand at the head of the Abyssinian *Materia Medica*, and they are perhaps the only remedies that the Abyssinians are acquainted with, and that are really useful to them. Among these remedies, the kousso and mesenna must be ranked first, and afterwards the fresh bark of the pomegranate, the *habi-tsalm*, *habi-tchogo*, *belbelta*, and *soaria*. The *kousso* is furnished by a rosaceous plant of the tribe of the *spiræas*, and approximating to the genus *agrimonia*, and is called the *Brayera anthelmintica*. This is a beautiful dioecious tree, terminated

above by a bunch of leaves, and with long, pendant bunches of flowers. The latter are the parts employed, and the dose is a handful. The Abyssinians reduce the kouso into a coarse powder, and swallow it mixed with water. An hour after taking it, there is an ordinary evacuation, and half an hour or an hour later there is a liquid motion, and at the end of three, or sometimes four or six hours, the *tænia* is expelled in the form of a whitish ball. The Abyssinians swallow the kouso fasting, and take no food until after the expulsion of the *tænia*; but afterwards they drink and eat abundantly, and use the most exciting kinds of food and drink. The *mesenna*, another remedy for tape-worm, was once supposed to be obtained from the *Juniperus procera*, but is really the product of a leguminous plant, the *Albizzia anthelmintica*, a tree of some three or four feet high, with a thick and very rugous bark. The latter is the part used in medicine. The Abyssinians take it in various ways, but they always employ the powdered bark in the dose of about sixty grammes. They mix it with water, or they make it into bread with flour, or they incorporate it with butter or honey, so as to form a kind of bolus, which they swallow. The consequence is, that on the evening when the drug is taken there is a semi-solid motion, in which there are some fragments of the worm. It is only on the next day and the following days that the rest of the *tænia* is expelled in seromucous evacuations. The *mesenna* is said to be the best remedy for tape worm, and completely expels this parasite from the body. The *habi-tsalim* is obtained from two kinds of jasmine—the *Jasminum Abyssinicum* and the *J. floribundum*—and the leaves are the parts employed, mixed with the young shoots of the *Olea chrysophylla*, a kind of olive. A handful of this mixture is pounded very carefully between two stones, with the addition of a little water, and thus a kind of liquid paste is obtained and swallowed by the natives. It is said to be very efficacious in expelling the *tænia*. The *habi-tchogo* is now proved to be the *Oxalis anthelmintica*, a handsome plant with a subterranean stem, terminated by an oval bulb of the size of a chesnut. The bulbs are the parts employed, in the dose of sixty grammes or more; the Abyssinians eat them by handfuls like small onions, or bruising them on a stone, they mix them with fluid, and drink the juice after it has been strained through linen. The *habi-tchogo* is said to be almost as efficacious as the kouso. The *belbella* belongs to the family of *amarantaceæ*, and is said to be obtained from the *Celosia adoensis*. According to Schimper, the leaves, flowers, and fruits are employed for the *tænia*; but MM. Ferrel and Galinier state that it is the powdered seeds which are used. The *soaria* is a small shrub belonging to the family of the *Myrtaceæ*, and is the *Mæsa picta*. The part employed is the fresh fruit, or the same part dried. The *roman* is the native

name of the *Punica granatum*, or pomegranate. In Abyssinia, as in Europe, the bark of the root is the part employed, but it is rarely used. Among all these remedies for tape-worm, the kousso, the mesenna, and the habi-tchogo are almost the only anthelmintics employed by the Abyssinians.—*Ibid.*

On Scarlatinal Albuminuria (Treatment by Quinine.) By Dr. HAMBURGER. (*Archives Générales de Médecine.*)

In his communication the author confines himself almost entirely to the treatment which, in his experience, has proved most successful. Premising that in scarlet fever the albumen can be considered neither as the result of excessive susceptibility of the skin to cold, &c., nor to any alteration in the mass of the blood allowing of transudation from the vessels, nor indeed as a secondary phenomenon whatever, he attributes it solely to the localization of the virus upon the kidneys, the dropsy being a manifestation or expression of the specific affection, analogous to the primary effect of the virus upon the throat or the skin. As respects the treatment, the author inveighs strongly against the use of digitalis, which diminishes the urine and renders it bloody, and increases local effusion; and also against diuretic remedies, even the mildest; and thinks that vinegar, so useful in Bright's disease, as also mineral acids and hot baths, are useless. The remedy which he has found above all others of service is quinine. Under its use the fever diminishes, the urine is rendered more abundant and less bloody, and the appetite and general power increased. The amount of albumen does not, however, diminish. This remedy was used in 47 severe cases; in 44 cases improvement was at once very speedily manifested; in 3 cases only was there absence of result, good or bad, but these recovered. When employed in chronic cases, improvement follows the first doses almost immediately—most quickly in adults. In acute cases the quinine must not be at once administered. The dose should be, to infants, from 8 to 10 centigrammes a day, and to adults, from 15 to 20. Its bitterness has alone prevented him from trying it as a prophylactic after the early period of scarlet fever. During the use of the remedy the diet ought to be antiphlogistic, and confined to fluids. An interesting case is quoted at length, showing the value of quinine in a sub-acute case, in a child.—*Ibid.*

On the Pathology of Asthma. By G. H. KIDD, M.D., Assistant Physician to the Coombe Lying-in Hospital, Dublin, &c., &c. (*Dublin Quarterly Journal of Medical Science.*)

In this article the author enters into the consideration of the physiology of the action of the bronchial muscles, and comes to the following conclusions :

1st. That during the paroxysm of asthma, the chest is distended to the greatest possible extent.

2nd. That all the muscles of inspiration are in spasmodic action (tonic spasms).

3rd. That the bronchial muscles are muscles of inspiration, and associated in the spasmodic action with the other muscles of inspiration.

4th. That breathing is carried on by the voluntary effort to aid the muscles of expiration, and that as soon as this is relaxed, the muscles of inspiration, like so many stretched bands of india-rubber, distend the chest again.

That the spasm of the bronchial muscles in asthma arises from some morbid action in the medulla oblongata, is to be inferred from the following facts :

1st. The fact that the spasm affects an entire group of muscles. Now, Schroeder Van der Kolk has shown that muscles associated in action are supplied by nerves arising from special groups of mutually associated and connected ganglion corpuscles. Disorder of this group would then manifest itself in the entire class of muscles.

2nd. Van der Kolk has also shown that the skin covering parts moved by muscles is supplied with sensitive nerves arising from the same segments of the spinal centre as the motor nerves of those muscles arise from. Dr. Salter has remarked, as an almost universal premonitory symptom of asthma, that there is itching of the skin under the chin, over the sternum, and between the scapulæ. This it is evident is a subjective sensation, and indicates an irritation existing at the roots of the nerves.

3d. Paroxysms of asthma are observed to occur in cases of acute hydrocephalus, as in a case mentioned by Dr. Salter, and in one mentioned by Dr. Graves, where there were also general convulsions. In persons liable to epilepsy recurring at regular intervals, fits of asthma occasionally take the place of or serve as substitutes for the epileptic fit.

4th. The state of the patient precluding the fit of asthma indicates an affection of the nervous centres. In one there is mental exhilaration, in another mental depression. A patient of Sir J. Forbes is awakened by convulsions in one foot and leg, and as soon as the asthmatic fit is developed the convulsions of the extremity cease.

5th. The exciting cause indicates the same. In one, cold water applied to the instep will cause an attack ; in another, going to bed with a loaded rectum, sudden emotion, &c., &c. The latter will also check the paroxysm when fully developed. Hence it may be inferred that asthma depends on a morbid state of the medulla oblongata and spinal centres, which manifests itself by throwing the entire group of inspiratory muscles into spasmodic action.—*Ibid.*

A Case of Inversion of the Uterus. By JAMES P. WHITE,
M.D., Prof. of Obstetrics in the University of Buffalo.

On Saturday, Dec. 8, 1860, Dr. T. T. Lockwood, (late Mayor of this city,) a highly respectable practitioner of more than twenty-five years' experience, called upon me to visit Mrs. R—, on Seventh street, with all possible despatch. Dr. L. informed me that Mrs. R. had previously been twice attended in labor by him, on which occasions nothing untoward or extraordinary had occurred. He had, however, remarked that though a woman of small stature, her pelvis seemed to him remarkably large, and that she had completed the second stage of labor each time with great rapidity. He had been called to Mrs. R. this morning, she being not yet twenty-three years old, to attend her in her third labor. The first stage of labor, during which there were no unusual symptoms present, had occupied a little more than two hours, the patient not being at all exhausted, and was completed a little after 12 o'clock. At this time the membranes ruptured, a large amount of water was suddenly discharged, and with the next pain the child was thrown entirely into the world. Dr. L. immediately slipped the cord, which was of rather more than ordinary length, and once *around* the *child's neck*, but *not tightly drawn*, over its head. Soon after, as the child was crying vigorously, he tied and divided it, handing over the infant to the nurse.

His attention was immediately called to the mother, whom he now observed to look pale and to be fainting. Upon passing his hand up between her thighs, without having made the *cord tense*, he discovered a large tumor occupying the entire space, which, upon examination, he found to consist of the uterus, with the placenta attached. He immediately detached the placenta, carried the uterus up into the pelvis, entirely out of sight, where meeting with resistance to further reduction, he gave the woman a large draught of brandy and paregoric, and drove up to my house as rapidly as possible.

Without loss of time I returned with the Dr. to the residence of Mrs. R. whom we found surrounded by her friends, who supposed her dying. The woman was nearly pulseless, with all the symptoms of suffering from severe shock present in an eminent degree.

We immediately administered more brandy, tinc. opium and ammonia, and as she aroused a little and consciousness partially returned, we deemed it best to proceed at once with efforts to reposit the uterus. Upon introducing my hand into the vagina, I found the fundus of the uterus resting upon the perineum, though *entirely covered by the external organs*. Carrying the hand farther up, the inversion was found to be *complete*, and the organ pretty firmly contracted. The left hand placed upon the supra pubic region, detected a tumor there, which, although not round like the fundus of the uterus, might, through abdominal parietes

of moderate thickness, not unlikely to be mistaken for the normally contracted uterus in its natural position. Gentle continuous pressure was now made by the intra vaginal hand, whilst with the one upon the hypogastrium the anterior lip was hooked or held by the fingers, and counter pressure exerted so as to prevent injury to the utero-vaginal connection. In a few minutes the neck began to be reflected upon the body, and although some dimpling or depression could be felt in the fundus, reduction took place from the neck to the body, and finally the fundus following the body up through the neck to its natural position. It should be remarked that, notwithstanding the relaxation of the system consequent upon syncope, and although not more than an hour or an hour and a quarter elapsed from the time of the delivery of the child to the complete *re-position* of the inverted uterus, the organic contraction was so firm as to require considerable pressure to carry the body through the os, and reflect the organ upon itself.

The patient was now laid in a comfortable position, with the head depressed and stimulants and opiates freely given. She soon began to revive, the pulse returned to the wrist, consciousness was restored, and at 3 P.M. about two hours after the operation, I left her with Dr. Lockwood. The amount of blood lost was not great, and was, in my opinion, utterly insufficient to account for the depression which immediately succeeded inversion, and continued for some hours after restoration. Indeed it is not unlikely that the patient would have lost her life from shock had not stimulants been freely and repeatedly given. The vital energies were so much depressed—the pulse not to be felt at the wrist—and the countenance was so ghastly that we did not venture to make the least effort at restoration of the inverted organ until she had taken stimulants freely; and yet there had been very little blood lost. For several days Mrs. R. remained very feeble, with frequent pulse, and tender hypogastrium, but gradually convalesced. Her restoration has been complete, and she is now in good health, nursing her infant and attending to her ordinary domestic duties.

Remarks.—The subject of *inversio-uteri* has only within the last few years been brought prominently before the profession, and many questions in relation to its occurrence and restoration still remain unsettled. Some of these points the case above reported may aid us in solving. In a medico-legal investigation of great interest, recently had in Chicago, it was maintained by counsel, and this position was also sustained by medical testimony, that it was impossible for the recently inverted uterus occurring immediately after delivery, at the full period of gestation, to *remain in the vagina*. It was by those who sustained this theory held that the long diameter of the uterus would be such as to render it necessary that it should protrude at the vulva. In previous

efforts to reduce the recently inverted organ I was certain that the fundus was carried completely within the vulva before reduction at the neck commenced, and therefore stated my belief in its possibility. The vagina which has been elongated by pregnancy, and finally dilated by the passage of a fully developed foetal head, may be carried up into the abdominal cavity quite above the summit of the pubis, and thus increase its longitudinal capacity as well as its diameter. Speculate as we may, here was a patient delivered of a full grown male child, the inverted uterus following immediately, and within a very short space of time carried back completely into the vagina, and there left for more than half an hour without any pressure or support being made at the perineum. During this period the head of the patient was repeatedly elevated to take stimulants and opiates, and she made considerable effort in throwing herself about in approaching syncope. During the time the uterus remained there Dr. Lockwood left the house and came himself for me, in order to secure my early attendance, and yet some minutes after my arrival, upon examination, I found the fundus *did not* project beyond the labia. My attention having been recently called to this point, I was especially careful to note its position. More than this, when pressure was applied to the fundus for the purpose of re-position, the fundus was carried still higher before the os commenced to be reflected over the neck. In this, as in former recent cases reported by me, I found great assistance in the effort at restoration by "hooking" the fingers of the left hand over the anterior uterine lip, which could be distinctly felt through abdominal parietes of moderate thickness. It can be readily conceived by any one who has felt the tumor formed by the uterine os and neck in the hypogastrium in inversion, that it might be mistaken for the fundus, and the inexperienced practitioner be led to suppose it was the fundus, and that the organ occupied its natural relations.

Again, much discussion has been had relative to the manner in which re-position is effected. In this, as in all the preceding cases, I was careful to note that the os was first doubled down upon the neck, and then upon the body, and finally over the fundus. It is true that pressure upon the fundus produced slight depression or dimpling at its summit, but this did not increase and go on to complete re-inversion. In the seven cases of inversion, recent as well as chronic, in which I have repositioned the uterus at various dates, varying from a few minutes to more than fifteen years after its occurrence, in all, so far as I am able to judge, restoration has been accomplished in the manner above described, and in no instance by pushing the fundus up through the body and neck. Again, the manner of its occurrence in this case deserves to be especially noted. It would seem to have been *spontaneous*, as the funis was not tense, and was of more than the

ordinary length. Dr. Lockwood, who is a highly respectable accoucher, of large experience, assures me that when he slipped the cord over the head of the child, it was quite loose, and required no tractile effort to accomplish it. He assures me also that no traction was made upon the cord after the birth of the child, before the sinking condition of the patient claimed his attention, when, upon examination, he found the uterine tumor between her thighs with the placenta attached. It would seem that the uterus, which was excited to energetic contractions by the difficulty of dilating the os, meeting with little resistance in pushing its contents through the pelvis, followed, by its own contraction at the fundus, the suddenly rejected ovum down into and through the neck, and os, and into the world. I have never been present when the accident occurred, but it is not unlikely that it may occur immediately after sudden delivery, *spontaneously*, although doubtless much more frequently to be charged to unskillful or rude manipulations. This is the second case which has now come under my observation in which the inversion could not be attributed to forcible pulling upon the cord or placenta by the accoucher in attendance. It would not be safe to infer that in the remaining five cases traction at the cord or placenta was the sole cause, as their history could not be very accurately established. Two which are well authenticated are sufficient, however, to establish the fact that it *may* occur in the hands of good practitioners, when the second stage is rapidly completed, unless great caution be taken to retard the sudden expulsion of the ovum. Spontaneous inversion of the organ can, however, only take place immediately after the expulsion of the foetus, and not, as has been erroneously maintained, at a period remote from delivery, and after tonic contraction of the organ has been established.—*Buff. Med. Jour.*

Persulphate of Iron in Gonorrhæa. By A. H. STEPHENS, M.D.,
Camden, Ohio.

Two weeks ago a *gentleman* called at my office and inquired whether I could cure the *clap* without giving any medicine! After a moment's reflection, I replied, "There is nothing like trying." And taking down a bottle of saturated solution of persulphate of iron, which I had been using in a bleeding womb, I directed him to throw into the urethra three times a day about a drachm, and retain it there five minutes. The next day he returned much alarmed, and stated that the discharge had become bloody. I ordered an active cathartic, weakened the solution with an equal quantity of water, and told him to use the injection every three hours. In two days he returned in a very happy mood, and reported himself "all right." And now, two weeks since his first

call, he gladly announces the organ performing very satisfactorily its legitimate functions.

As this disease, like the comet, is a stranger in this neighborhood, I give this case in a suggestive way, that some of your readers, who may be more familiar with it, may be induced to test the merits of the persulphate.—*Cin. Lan. & Ob.*

Sanguinaria Canadensis (*Bloodroot*).—In an essay lately read before the Medical Society of London, Dr. Gibb discussed the natural history, properties and medical uses of this plant, which was first referred to in 1635, by Jacob Cornuti. The only officinal part is the rhizome, an analysis of which shows it to contain : sanguinarina (an alkaloid discovered by Dr. Dana, and containing the active principle of the plant) ; porphyroxin (first extracted by Riegel, analogous to the same principle discovered by Merck in opium) ; puccine (a third principle, first isolated by Mr. Wayne of Cincinnati ;) chelidonic acid, an orange-colored resin, fixed oil, fecula, saccharine and extractive water, vegetable albumen, liquid and a little gum. Experiments made by Drs. Gibb and Fenwick indicate that bloodroot, in a concentrated form, is extremely irritating, affecting principally the mucous membrane of the stomach and bowels. An excessive quantity acts as a poison and produces violent vomiting, a burning sensation in the stomach, tormenting thirst, faintness, vertigo, indistinct vision and alarming prostration of strength. In regulated doses, its properties are those of an emetic : nauseant, expectorant and diaphoretic. A narcotic, sedative, stimulant and alterative property is occasionally exerted. As an emmenagogue it has long been known, and it is used as an escharotic and errhine. As an emetic and expectorant it is highly valuable in various chest and throat affections, and has been employed in pneumonia, phthisis, bronchitis, catarrh, asthma, croup, diphtheria, cymanche maligna and pertussis. As a diaphoretic, stimulant and alterative, it is administered in many diseases in which sudorifics are indicated. In scarlatina, rheumatism, jaundice, dyspepsia, hydrothorax and some other affections its virtues have been praised. In cancer, it seems to be inert, but its value locally in many skin affections is undoubted, and it is certain to cure many obstinate forms of head eruptions. Several American physicians testify to its value in some of the stages of pneumonia, and especially in the chronic form. As an expectorant in the first and second stages of phthisis, its action is said to be very reliable ; the expectoration becomes easy, the breathing clearer, the spasmodic efforts at coughing less, and even in the last stage some improvement follows the exhibition of the plant. In chronic bronchitis, it acts as a useful expectorant, and is more serviceable than many other re-

medies. It will allay the cough and irritation in some forms of follicular inflammation of the throat, associated with phthisis or bronchitis, and it is not less useful in the various forms of catarrh, particularly in the chronic, associated with emphysema; also in coryza. The paroxysms of asthma are relieved and their severity and frequency diminished. It is much used in pertussis and croup, and it appears to be, as an emetic, well adapted to the croupal form of diphtheria, while in the malignant form of the same disease an acetous decoction of bloodroot, used as a gargle, proves invaluable. Its usefulness in epidemic, malignant scarlatina has been fully tested by Dr. Jennings, of Virginia, in the same form of gargle, and there is some evidence of its good effects in certain forms of chronic rheumatism, and in some hepatic affections. In amenorrhœa it will prove, either alone or combined with other substances, one of the best emmenagogues. The skin diseases which have been cured by it in the form of ointment, are scabies, tinea capitis, impetigo of the scalp and many others. The preparations in use are: powder, compound powder, powder with camphor, infusion, decoction, preserved juice, oil, extract, tincture, wine, vinegar, syrup and ointment.—*London Lancet*.—*Ibid*.

Nature and Treatment of Puerperal Fever.

According to Prof. Barker, of New York, there is a direct and intimate connection between this disease and true erysipelas, the *materies morbi* of the latter undoubtedly giving rise to the former. It is a specific disease of the blood, *sui generis*, eminently communicable from one person to another. In what consists the toxæmic condition, is not known; we can only judge of the poison by its effects. The disease is produced by the contagion of erysipelas, by its products of prutrescent decomposition, and in some cases by epidemic influences. Though always presenting sufficiently characteristic features, it varies in many of its manifestations in the same epidemic in different localities, and in different epidemics in the same locality. It sometimes overwhelms the vital forces so completely and rapidly as to produce death within a few hours after its onset. All autopsical lesions are the results of the disease, not the disease itself; they differ in different epidemics. Puerperal peritonitis characterizes itself by the absence of pain, venous injection, sero-purulent or sanguineo-purulent, flaky, offensive exudation. The more severe the attack, and short the course of the disease, the fewer are the pathological appearances found. As to treatment, an attempt should be made in the early stages, if possible, at elimination of the *materies morbi* (venesection or calomel), if the case admits it, which rarely happens. Veratium viride should be employed to control vascular

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action, combined with opium—preferred in the form of Megendie's solution—in quantities as large as could be borne. At the same time, the system should be supported by free stimulation, especially in the latter stages; this, though placed last, is probably the most important indication of all. In case of an anticipated epidemic of the disease, Dr. Barker is in the habit of giving quinine as a prophylactic.—*Jour. Mat. Med.—Ibid.*

Belladonna Shortening Labor.

Dr. B. F. Barker gives a table of 147 cases of labor, in all of which belladonna had been given for the purpose of dilating the os exterrum by comparatively painless contractions. The extract was given in one-quarter grain doses, two or three times a day, commencing about two weeks before the end of gestation. Plethoric patients took tartar emetic in combination with belladonna—three grains of the former, eight of the latter, in two ounces of the syrup of orange peel, one ounce of the tincture of orange peel, and one ounce of water; a teaspoonful three times a day. With some the following formula was used: compound tincture of cinchona, three ounces; syrup, one ounce; extract of belladonna, eight grains. Other combinations were described to fill special indications.

A very great difference appeared in the susceptibility of patients to the influence of the agent, and also a great difference in the purity and strength of the article. One would seem to have double the potency of another, without any corresponding difference in the appearance, color or odor. In some cases the dose had to be diminished, but in most instances it could be gradually doubled, or even tripled. Dryness of the throat, slight uneasiness or giddiness of the head, dimness of the vision, are indications to diminish the dose. Not one of the children was still-born, and in none of the cases was there post-partum hæmorrhage or retention of the placenta. In one, the function of lactation was entirely absent; in two others the mammary secretion did not appear until the fifth day.—*Amer. Med. Monthly.—Ibid.*

Battle of Bull Run. One Day's Experience on the Battle-Field. (Am. Med. Times.)

CAMP PLATT, near Alexandria, Va., July 26, 1861.

I have had no time to write to you before, and I have scarcely the time now, but I have seized a few moments of leisure to give you a brief account of one day's experience upon the field of battle.

At half-past two, Sunday morning, I was in my saddle, with my assistants by my side, and my ambulance was ready for the march. The column began to move at this early hour, but our Division, under General Miles, did not leave the encampment until after six o'clock A.M. We then followed the long train which had preceded us, and after a march of about three miles took up our position where the battle of the preceding Thursday was fought, upon the brow of a hill commanding a view of the whole valley in which lay the forces of the enemy. The 32d and the 16th New York Volunteers were ordered to support Lieut. Pratt's battery, Col. Pratt, of the 31st, acting as Brigadier-General or commanding officer, while Lieut.-Col. Brown took charge of our own regiment, the 31st; subsequently Col. Pratt took charge of his own regiment, and was ordered to support Maj. Hunt's battery.

As soon as the troops were fairly in position, the batteries opened upon the enemy with shell, solid shot, grape and cannister. Their fire was very effective, but it was answered until late in the afternoon. In the meantime my assistants aided me in selecting a place along the wood, in our rear, where a pretty deep cut or gorge, leading a little off from the main road, would enable us to dress the wounded without exposure. We all went to work with a will, with the help of the drummer boys, and had soon cleared the gorge of stones and bushes. Here we proposed to have the wounded brought on stretchers by the drummers and a few volunteer aids, who together composed my ambulance corps. We then placed our ambulance above and beyond the gorge, in the direction towards a log-house, which was situated one-quarter of a mile further off in the rear. We took down the fences to let the ambulance pass, and planted our red flags at the temporary depot, and at the log-house. We were all ready when we received notice of an expected charge of cavalry upon that road, and were requested to select a building on the opposite side of the road, as the enemy's batteries would range across the old log-house. Accordingly we hastened to make the change, and in a few minutes we had everything as well arranged in a snug wooden house, occupied by negroes, as if we were in Bellevue. The operating table was ready, the bed arranged, and the instruments, sponges, bandages, cordials, etc., in order.

I now rode back to the field, and found we had had one slight skirmish, in which one man of the 16th had been wounded in the head, which Dr. Crandell, of the 16th, had already dressed. It was past mid day, and we were all tired, hungry, and thirsty. Exploring a garden in front and to the right of the batteries, I found cabbages, beets, parsely, onions, sage and potatoes; near by were chickens, and smoked hams in a deserted lodge. Water we found one quarter of a mile to the left on the borders of the

woods, within which lay the enemy, but the drummers brought water, and with the help of Mr. Nourse, Dr. Marvin, and my son, we soon made about four gallons of the best soup I have ever eaten. We had salt and pepper to season it, and good appetites to welcome it. We made also a large coffee-pot full of coffee, and found sugar to sweeten it. This we carried to the rear and fed out first to the Colonel and his staff, and then to the line officers and men, as far as we could go, not forgetting ourselves and the drummer boy.

After this precious repast we carried whiskey to those soldiers who had been skirmishing, or who seemed especially to need it; for they were without shelter, under a sky of brass. To those who called for it also we sent or carried water in pails—such water as we could get. The men never left their lines, except when ordered to act as skirmishers, and must have perished except for some such refreshments.

At about four or five P.M., a message was sent to us that the enemy were retreating, and that the day was ours, and I immediately returned to my hospital to order, of the black inmates of the South, supper for the Colonel's staff and my own. I was standing at the door, looking out towards the road, when I saw the regiments approaching in order, but rather rapidly; at the same moment came an order from Dr. Woodward, the intelligent and faithful medical director of our division, for me to fall back with my hospital to Centreville, about one mile further back, as the enemy were making an attempt to flank us on the left, in the direction of our division. I immediately had everything replaced in the ambulance, and having paid Maria, the black woman, whose dinner we did not eat, we started for Centreville. We went along the same road with the troops, who were moving in good order, and without any appearance of alarm. At Centreville I took out my amputating case, general operating case, and medicine chest, and finding a large number of wounded already here, proceeded at once to dress their wounds, extract the bullets, etc. We were occupied for an hour or more in an old tavern. My assistants here were Dr. Lucien Damainville (first Assistant), Dr. — Brown, Mr. Marvin, medical student, Mr. Nourse, and my son Frank, who had been acting most of the day as Colonel's aid. I think Dr. Arnt, of one of the Michigan regiments, was with us at this time. We had no bandages, no lint, no sponges, no cerate, and but very little water, and I think only one basin. Our first attention was directed to those already in the house. Stooping down as they lay crowded upon the floor, we inquired, "Where is your wound, my poor fellow?" for they seldom called us until we came to their relief, nor did many of them utter a moan. There they lay silent, waiting their turn. Most of the wounds were made by spherical balls—some had gone through

entirely, without breaking a bone or severing an artery—and to them we said, “Bravo, my boy, a noble wound, but no harm done. Mr. Nourse, apply a cloth wet with cool water.” Not a few, encouraged and strengthened by these words, got up, and came on foot to Alexandria and Washington. I saw several at Fort Runyon, from whom I had extracted balls from the neck, arms, and legs, the next morning when I arrived there, and they had walked the whole distance. Three or four had balls through their bodies, and had walked two or three miles to the village; one was brought up with a wound in his thigh, who had lain on the field since the Thursday preceding. He will recover, I think.

From this building we went to a private house, which was also full, and then to the old stone church. Here I met Dr. Taylor, of the 1st New Jersey Regiment, who was laboring most industriously, and Dr. —, a private, a very intelligent man, belonging, I think, to the 2nd Michigan, and who, for his extraordinary zeal and attention, deserves great credit.

In the old stone church the men were lying upon every seat, between all the seats, and on every foot of the floor; a few on stretchers, perhaps three or four; a dozen or more in blankets—occasionally upon a litter, hay or straw, but mostly on the boards.

The scene here was a little different; it was dark; we had but two or three tallow candles. The men had been waiting longer, and were in general more severely wounded; and, although now and then a man asked us to pass him, and to look first after some one lying near who was suffering more, yet from all sides we were constantly begged and implored to do something for them. After a little we concluded to take them in order as they lay, since to do otherwise rendered it necessary to consume time in going backwards and forwards, and we were constantly in danger of treading upon the wounded; indeed, it was impossible to avoid doing so. By this time we had found a hospital knapsack, and were pretty well supplied with bandages; but the time did not allow us to do much more at first than to extract the bullets, and apply cool water-dressings, with lint.

Only two amputations were made by myself; one below the knee, and one above the elbow-joint. Both of them, I confess, were done very badly; but I could, at the time, and under the circumstances, do no better. My back seemed broken, and my hands were stiff with blood. We still had no sponges, and scarcely more water than was necessary to quench the thirst of the wounded men. My assistants were equally worn out—Dr. Taylor alone seemed vigorous, and ready for more toil.

At half-past twelve, or about that time, we went out to get a candle, to enable Dr. Taylor to amputate a man's arm at the shoulder-joint. Just then a regiment came up, and the Colonel was challenged by the picket. This reminded me that if we were

to stay all night, as we had mutually agreed to do, we should need the countersign; but, although we told him we were medical men, in charge of the wounded, and intended to stay, this was refused to us. The Colonel told us that his was the last regiment covering the retreat.

We obtained a candle, and went to the house where lay Dr. Taylor's patient, with his arm terribly shattered with a cannon-ball, or fragment of a shell. It was nearly torn off, near the shoulder-joint, but the hæmorrhage was trivial. He was dying of the shock. We gave him whiskey, the only stimulant we had, with water, dressed the wound slightly, and left him to his fate.

Dr. Damainville and I now lay down upon our backs upon the floor beside the wounded; we could do no more—our last candle was burning. Some of us had seen all the wounded, probably 250 in number, and done for them all that lay in our power. I had drunk some buttermilk, and eaten a sandwich that Adjutant Washburn had held to my mouth once in the evening, but none of us had had any other food. I had sent Adjutant Washburn to overtake General McDowell early in the evening, and to represent our condition, but he could not find him, and returned without help. The two bottles of whiskey, taken by my son from the ambulance, when we first came, were already nearly distributed to the wounded. They had not a morsel to eat; the ambulances were gone, and had been for several hours. As we went into the street again, we found it was silent as the grave; the pickets even were gone, and except a few men, so soundly asleep under the trees that we could not awaken them, there was no one left in the road. After a second consultation we determined to go also. My assistants and myself soon found our horses, but the servant was gone, and with him the bridles, nor could we, after much search, and long and loud shouting, find him. I went back to the old stone church, and found one soldier, just brought in, whose wounds I dressed, and then said aloud to the poor fellows within: "Thank God, my boys, none of you are very seriously injured; you will probably all get well." To which I heard one or two feeble responses, "Thank you, Doctor, thank you." I could not tell them I was about to leave them, and I trust in leaving them so I did them no wrong. I could be of no more service to them until morning, and then I presumed they would be in the hands of a humane and civilized enemy, who would care for them better than we could. As I passed along out of the village, I requested one gentleman who lived there to look after them, and also a man and wife with two daughters. They all promised to do what they could.

Our instruments we could not take. There were five of us, and two horses, and my son had sprained his ancle, and could scarcely walk, so we went on towards Fairfax Court-House, and in half

an hour we began to overtake the rear regiments, and soon I saw Dr. Woodward's cheerful face, begrimed with dirt like our own. I told him how we had left the wounded. There was no remedy, said he; they must be left. We hurried on, and at Fairfax Court-House overtook General McDowell, to whom I at once reported the condition and number of the wounded, and requested to be sent back if he thought it best. He replied, "You have done right, keep on to Washington." As I was leaving the gate he sent a messenger to call me back, and to ask me if I were walking. I replied that I was. "Gen. McDowell has here ten or twelve ambulances," said he, "for the wounded, which he obtained by a dispatch to Washington. He wishes you to ride." From Fairfax I rode until our ambulance broke down, filled with wounded. The wounded were transferred to another ambulance, and I again took to my feet, and occasionally to my horse. I reached Fort Runyon, opposite Washington, at about 10 A.M., and here washed my bloody hands and arms, for here I found the first water.

The wounded were scattered the whole distance from Centreville to Washington, not in large numbers, but here and there one could be seen, walking by the aid of one or two associates. In reference to the ambulances, the occasion of their absence from Centreville was simply, that the drivers became frightened, and to turn them back would have been impossible. Nor do I think it would have been possible for General McDowell to have sent one vehicle back beyond Fairfax at the time I saw him.

It is remarkable that most of the wounds seen by me were not of a character which would be likely to prove fatal. Perhaps the men most severely wounded were left upon the field, or were dressed by those noble surgeons who were near them, and some of whom lost their lives, while others gave themselves up as prisoners.

In no case did a wound seen by me require the use of a tourniquet, although some of the soldiers had their limbs tightly girded so as to have already occasioned great swelling and pain.

Most of the balls extracted were spherical; and of those which I removed, the majority were removed through counter openings, the balls lying close against the skin.

Nearly all the soldiers that I have seen since the battle, in Washington and Alexandria, are doing well.

I must not omit to state that after I had left, and when I supposed our whole party was in front of me, Mr. Nourse, acting assistant apothecary in our regiment, went back with three horses, and placing three wounded officers upon them, sent them off, for which he would accept of no compensation. He then walked himself the whole distance to Alexandria. This, with many other signal

instances of this young man's courage, endurance and humanity, deserves an especial notice.

My own regiment having, under its excellent commander, Col. Calvin E. Pratt, of Brooklyn, N. Y., covered the retreat of most of the forces, and especially of Hunt's battery, which took up a new position near Centreville early in the evening, left the ground at 11 P.M., and returned in perfect order to its old encampment near Alexandria. Before they left they received five successive volleys from the enemy's infantry, but not allowing their own fire to be drawn they saved themselves and their battery from being overwhelmed and taken. I must regard the coolness and discretion of Col. Pratt under these circumstances as the highest evidence of his capacity as a military commander.

FRANK H. HAMILTON, Surgeon 31st Reg. N. Y. S. V.
[*Cin. Lan. & Ob.*]

Scarlet-Fever and its Treatment.

Dr. Z. Woodruff thinks death in scarlet-fever to occur in the majority of cases from the reflex action of the nervous system, the poison, by its primary action upon the skin, interrupting the functions of that organ and thus producing cerebral disturbance. The proper treatment, therefore, would have to quiet by all available means the irritability of the nervous system. One of the most effectual means for so doing is the free administration of anodynes, among which the various preparations of opium are the most reliable. Where opium is found to disagree, other anodynes may be substituted, as lupulin, belladonna, etc. The last named is valuable only when given in doses sufficient to quiet the nervous system, and not from its exerting a specific action in this disease. The room where there will be the least noise and confusion should be selected, air and sunlight freely admitted. The temperature should be as low as the patient will bear, without being chilly. While the skin is everywhere in a state of irritation, it is an impossibility to take cold. In this disease there is not only a morbidly excited vascular action of the skin, but intense nervous excitement. The effect of cold is to diminish both to that state which is requisite to enable the skin to perform duly its function. An increase of heat must be neutralized by a corresponding augmentation of the cold, which latter will be found to conduce to perspiration in all cases in which perspiration is prevented by an unnatural excitement of the skin. It is highly important that an equable temperature be preserved. Frequent sponging with cold or tepid water, if the heat of the body is above a natural standard, or if the patient is restless, is generally beneficial; although it should be discontinued if there is any sensation of chilliness. The extremities should be kept warm

until the eruption makes its appearance among them. The bowels should be kept regular by gentle laxatives or injections. Ipecacuanha, tartar emetic and other nauseants are rather injurious than beneficial. No irritating applications should be made to those parts upon which the eruption has appeared; blisters are especially to be avoided. Among the various local remedies used for the throat affection, none answer so good a purpose as the Peruvian bark. As the eruption recedes, the flannels should be immediately re-applied, and the skin be rubbed with oil every day, until the new cuticle is completely formed. During this time, the room should be kept warm, the patient warmly clothed, cold drinks avoided, and exposure of every kind be carefully guarded against. Of sixty-nine cases treated in accordance with this rule, only one proved fatal. In small-pox and measles the same course may be pursued.—*Am. Med. Gaz.*—*Cin. Lan. & Ob.*

The Use of Stimulants as a Beverage.

A few weeks since we referred to the use of stimulants in the treatment of disease, for the purpose of contrasting the method of Dr. Todd with that pursued by Dr. Gairdner, of Edinburgh, in the Infirmary under his charge. The social use of stimulants as a physiological rather than a moral question is still under discussion in England. A community in which the consumption of these articles is so enormous cannot easily submit to the deductions from Dr. Carpenter's total abstinence opinions, and as a consequence we find able and elaborate arguments in defence of the almost universal custom. Without for a moment accepting as true, with reference to our communities, the statement of Dr. Brinton, in his late work on Food and Dietetics, that "it is singular how few healthy teetotallers are to be met with in our ordinary inhabitants of cities," and adding that after an examination of many thousands of individuals, during a period of many years, with special reference to this question, he was obliged to confess that he had met with very few perfectly healthy middle-aged persons successfully pursuing any arduous metropolitan calling under teetotal habits, we can yet see much that is reasonable and sound in an article on the question by Daniel Hooper, B.A., M.B., published in the London *Lancet*, from which we make the following extracts, regretting that we have not room for the whole paper:

"In studying the physiological action of alcohol upon the human body, we must never forget that it is one of that large class of agents whose influence varies, not simply in amount, but in kind or quality, according to the quantity administered; so that the effects of a large dose will be, not a mere *multiple* of those of a small one, but of a totally different character. In some few

cases, of those of lying or stealing for instance, quantitative difference does not produce qualitative difference ; but in the majority of cases it does. A certain temperature produces ice—a higher one, steam ; a certain weight bends a spring—a heavier one breaks it ; a short mountain walk invigorates the body—a long one weakens it ; a few hours' study may innervate the brain—a few hours' more may enervate it. And may not, also, a certain amount of alcohol, tea, coffee, &c., strengthen the nervous system, and a larger one weaken it ? Or is alcohol mischievous in *all* proportions, whilst tea, coffee, study, &c., are not so ? Cause must be shown why alcohol is to be excluded from the class of agents which do good in moderation, and harm in excess. * * *

“ My own observation and reflection have led me to believe that alcoholic drinks are highly useful, if not necessary, articles of regular, daily consumption for vast numbers of persons ; but that their kind and amount must be determined by age, sex, constitution, mode of life, and other circumstances. I believe they are more necessary for those whose avocations involve head-work, anxiety, and wear and tear of brain, than for such as lead a comparatively animal life, or one of mere bodily labor. And I think it will be found that the degree of *refinement* of the alcoholic liquor required is in tolerably exact ratio to the expenditure of brain-power. The agricultural laborer, for example, is satisfied with ginger-beer, or very poor home-brewed beer ; the working classes of London with porter ; clerks and shopkeepers with bitter ale ; and barristers, judges and members of parliament with wine. In fact, we find a gradation of brain-work corresponding pretty exactly to that of the refinement and alcoholic power of the liquor habitually and instinctively made use of. On the continent, also, we see illustrations of the same fact—the strength and refinement of the wines consumed gradually rising with the exaltation of the brain-work of the consumers. Nor is this owing, as might be supposed, entirely to difference of rank or pecuniary resources ; for every man finds the same fact illustrated and corroborated in his own experience. We all find, when on our tours in Switzerland or in the Highlands, where we enjoy pure air, good food and rest, and recreation of brain ; when, in short, we are living rather an animal than an intellectual life, we care nothing for, and do not require any sort of, alcoholic liquor ; whereas, when engaged in our profession or business in London, in the midst of bad air, noise, hurry, bustle, competition and excitement, we are conscious of an unmistakable craving for a certain amount of alcohol with our daily food ; the reason being that, in the one case, we are doing everything to refresh and fortify, and in the other, to exhaust and wear out the nervous system. This fact goes far to prove that alcohol, in some peculiar but as yet unexplained way, *does* repair nervous tissue.

“ In estimating the value of alcohol, the experience and testimony of healthy persons who use it habitually, and in moderation, ought to be taken into account ; also the fact that in all ages, and in every corner of the globe, man has discovered a method of preparing it. There are persons who do very well without alcohol ; but this is no proof that it is useless to others. There are country districts where the laborers are strong and healthy without meat, and with beer almost as weak as water ; but does it follow that the same fare would suit the London lawyer, barrister, judge, or member of Parliament ? No, the two cases are totally different. Men whose labor resembles that of horses may and do live, like horses, upon corn and water ; but those who are calculating, thinking, and reasoning twelve hours out of the twenty-four, require a more refined sort of food and drink. A ploughboy will look fat and rosy upon his bread and cabbage and hard pudding and water ; whilst a Gladstone will require, besides these, good animal food, tea, coffee, and an alcoholic liquor of great purity and refinement. If the brain-work of the London clerk demands a supply of Bass’s ale, that of the working statesman will require something approaching ænanthic ether.

“ Two arguments used by total abstiners require a short notice. They maintain that alcoholic liquors cannot afford any real and permanent benefit, because they contain little or nothing of a *solid* nature (as proved by evaporation to dryness). But if this proves the worthlessness of wine, so does it of tea and coffee ? The fact is, experience has proved that all these agents, in spite of their unsubstantial nature, do refresh the wearied brain and nerves, and impart new life and health to the spirits. Exercise, fresh air, recreations, study, tea, coffee, and cigar smoke, are all devoid of solidity ; but the argument that they are *therefore* incapable of imparting anything to the human body is still more so. On the contrary, we know that exercise does add bulk and weight and substance to the muscles ; that fresh air does redden and enrich the blood ; that recreation and study do nourish the brain and nerves ; that tea and coffee and alcohol do, at any rate, prevent a waste of the tissues (and probably also directly nourish the nervous system) ; and that moderate smoking, by soothing and calming the over-busy and excited brain, prevents its exhaustion and waste ; in short, some of the least material agents have the most real, powerful and beneficial influence upon the human body. Again, teetotallers contend that, in the case of alcohol, it is impossible to define moderation and success, since what is moderation to one man is excess to another, and *vice versa* ; but this is equally true of salt, sugar, tea, coffee, and many other things, moderation and excess in which they regard as tolerably well defined by common consent. The truth is, there is a certain recognized standard quantity of alcohol, salt, sugar,

tea, coffee, &c., which all men agree to call *moderate*, and the difficulty is not greater in the case of alcohol than of any other article of daily consumption. The man who eats a leg of mutton at a meal, or consumes a pound of salt, or drinks a gallon of beer per diem, is looked upon by the public as a monstrosity, an exception, a wonder! whilst he whose daily consumption is one sixteenth of these articles is regarded as an ordinary individual—a type of the masses; in short, the excessive and the moderate man are as well known and as easily recognized as are any of the types and their deviations in the animal and vegetable world. It is idle and absurd to pretend that the boundary line between moderation and excess is indefinable. I believe every man knows where it is, and when he has overstepped it, even although, from long habit and blunted sensibility, the transgression may have little effect upon him. The soldier's rations and the diet-lists of our great hospitals, are so many proofs that *there is a standard* in these matters, well understood, and that public institutions, in their dietetical arrangements, do not contemplate or provide for monsters who eat a leg of mutton and drink three gallons of beer per diem?"—*Boston Med. & Surg. Jour.*

Practical Remarks on Minor Midwifery. By EZRA M. HUNT, M.D., of New Jersey.

USE OF RELAXANTS.

We not unfrequently meet with cases in obstetric practice, in which the os seems indisposed to yield before the influence of pains, and although these are frequent, persistent and severe, little or no progress is made. In such cases, the value of relaxants often comes up as a question to the mind, and it is important to be able to make judicious choice between them. Venesection, tartar emetic, and morphine, stand most prominent in this list. As to blood-letting in tedious labors, not complicated with congestive convulsions or any other anomaly, we believe it very rarely indicated. We cannot predicate what may be the unavoidable loss of blood by the uterine vessels before the labor is completed, and accidental cases sometimes show us what a serious thing prostration, from loss of blood, proves after labor.

Tartarized antimony is not so objectionable, while it very often effectually accomplishes the object desired. It is a depressant which can we more easily accommodate to circumstances, and upon which we can more certainly reckon than many others; and although still more direct sedatives such as veratrum, aconite, etc., are fashionable, we confess we have not yet discovered the vast superiority over the old tartar. But in this class of cases we regard morphine as more generally applicable than either of others. Not

only as relaxing the rigid os, but as suspending temporarily ill-directed pain which sometimes seems to irritate and exhaust the uterus rather than facilitate progress; it prepares it to resume its power with more efficient aim. The following case illustrates its action:

Mrs. M——, a small, narrow-built woman, the wife of an unusually large man, was taken in labor with her first child. After twenty-four hours of pain, most of the time quite severe, no adequate progress was made. The os was but imperfectly dilated, the diameters of the pelvis indicated at least great tediousness, and the woman was much exhausted. There was some fever of an irritative character, and partial rigidity. I gave her a dose of morphine, and came home to rest. It lulled the pain somewhat, but as soon as its full effect was felt the womb readily dilated, and labor was accomplished before I could return. My placebo and medical nap-promoter had expediated labor, as nothing else could. While it relaxes and temporarily suspends pain, it does not depress as much as do other sedatives, and is highly available in the few cases in which some such design is implicated.

PROLAPSE OF THE CORD.

In cases of prolapsed cord, have we any other resource in order to save the child than to endeavor to keep up the cord until the head has become so engaged as not to permit its passage? The old method of pushing and hooking it up was a fine theory, but any one who has tried the provoking experiment is more concerned to know how it may be made to stay there. The plan suggested by Dr. Thomas of placing the woman in such posture upon the knees, and inclined forward so as by the force of gravity to keep the cord up, is a good one, where it can be made available; but some women will not submit to be kept in this position for a sufficient length of time to accomplish the object, and besides, any change of posture, made momentarily necessary by circumstances, is very apt to reproduce the trouble. The following case illustrates a plan which may be available where there are the same attendant circumstances. A lady who had recently removed hither, had had very serious trouble in former labors from a contraction of the superior strait, so that, as she expressed it, in the first bearing down pains the child seemed determined to come through above the bones. There was a full inferior strait, but in the early pains the cord made its appearance externally as soon as there was a passage for it through the "os uteri." Persistent attempts at reduction by both the above methods were unavailing, and my only hope was, after full dilatation of the womb, so to time the use of ergot as to hasten delivery after the superior strait was fully reached by the long diameter of the child's head. Although its contractions are continuous instead of intermittent,

yet the continuous pressure of the one, if that is rapid in its relief, is no more hazardous than the tardy action of the other ; for so far as the cord is concerned, the natural pains, just as much as the ergot, inflict an unremitted pressure on the cord, in slow cases, during the last few minutes of labor, and thus secure fatality to the child. In this case, the ergot acting rapidly hastened delivery, so that the child, though somewhat asphyxiated, escaped unharmed. The plan is seldom applicable, but not inexpedient where there is a full pelvis and where other methods have failed.

TYING THE CORD.

The tying of the cord, though in theory a very simple matter, is one in which mistakes are sometimes made. A case occurred to me a few years since, in which an unskillful person tied it with a silken string several times directly at the umbilicus, and the result was peritonitis and the death of the child. Such an error could only occur in the hands of an ignoramus.

The time of tying the cord is to be governed entirely by the condition of the child. It is a matter about which there is no haste, unless the condition of the patient in other respects requires immediate attention ; and even then, may be left until afterwards. If the child is actively breathing, circulation through it will cease itself ; if not, it needs to be kept up by leaving the cord intact, except in those few exceptional cases where it is advisable to cut it without tying, in order to abstract a slight quantity of blood. In a very large cord, where it has been tied very soon, I have once or twice seen after difficulty. A case will illustrate. I was called some time since to see a lady in confinement with her third child, on account of fright merely, and a want of confidence in a young physician who was managing the case well. The child when born was, I noticed, attached to the placenta by a very large cord, and there being no asphyxia whatever, the cord was immediately tied and cut by the attending physician. He seemed to draw the ligature tightly, and requested me to attend to the delivery of the placenta. Stepping into the other room, and hearing no noise from the child, I inadvertently stepped up to look at it, and found it pale and beautiful as wax, but its lower blanket saturated with blood, and it was only by the persistent attention and stimulation of hours that it was kept in existence. He had drawn the ligature, I am sure, with usual tightness, but the umbilical vessels were quite incompressible, and hence had not drawn it tightly enough. If you will accustom yourself to feel the beating of the cord after delivery, you will notice great differences in this respect. A case recently of my own, in which I noticed an unusual degree of tenseness which led me to draw the string quite tightly, I afterwards found beginning to bleed in just the same way. Any such risk I am now in the habit of avoiding very

easily and satisfactorily, by compressing the cord between the thumb and finger for a moment before tying it—thus interrupting the circulation. This, if the child is active, will make more perfect the change from foetal to respiratory circulation; if not, will indicate to us whether it is proper as yet to sever the connexion and prevent such an accident as the one noticed. The cord is thus tied with greater ease, the spirting of blood upon the bed clothes prevented, and the risk of further hemorrhage dispelled. Another plan is to tie but one knot in the ligature, then cut the cord, draw the string more tightly, and make the second tie.

MANAGEMENT OF THE PLACENTA.

The management of the placenta forms an important matter in the safe conduct of labor, and quite various is the instruction given with regard to it. Denman calls it a natural labor, only when the placenta is expelled without any interference; others make it quite a common practice to take away the placenta without delay; and between those two extremes, you find practitioners of every shade of practice and belief. On the one hand, it is represented to be bold and meddlesome midwifery to introduce the hand within the uterine walls; while others say, that the man of sense who uses his hand as the index of a judicious mind, seldom does harm in the cavity. One great error, as it seems to us, in respect to this placenta business, as well as in many other obstetrical points, is to regulate every thing by measurement of time. One may be in natural labor two days, and another require interference in less than three hours, and so, as to the placenta we have our specified time tables, and they vary, according to the best authorities, from a few minutes to a few hours. Now all these equations of time are merely circumstantial, and not essential and exact. It is true, as a general remark, on the one hand, that a bad rapid extraction may too suddenly rupture the uterus, or encourage too much interference, and also that a delay of an hour or so renders the uterus susceptible to hemorrhage; but after all the true test is the state of the uterus itself, and the degree of its contraction. Whenever the womb is well contracted, be it ten minutes or five hours after delivery, then is the time the placenta should be forthcoming.

The placenta is a non-contractile surface spread out on a contractile one, whether we regard its connexion as direct or by endosmosis; and whenever the uterus contracts, and not till then, separation takes place. If it does not then soon appear, or at least is not easily accessible, it is either held fast by adhesions or is held loose in the uterus or vagina, in no way doing any good service. If there is uterine pain, this is often sufficient to expel it; and if not, still there is some contraction; sensible interference

promotes it, and aids the very object desired. We believe the following to be the right practice:

Within a very short time after delivery, the hand of the physician should replace that of his assistant externally, in order that he may appreciate the precise condition of the womb, and if this is feeble in contraction, a little judicious pressure and irritation will probably facilitate it. Then with the hand of the assistant holding gently but not forcibly the uterine tumor, take hold of the cord firmly with a dry cloth, and making it tense without pulling, with the other feel the edge of the placenta. If there is some pain with a slight cough or blowing through the closed hand on the part of the patient, tighten the cord, at the same time, getting hold of the edge of the placenta between the fingers by a wavy motion from one hand to the other, endeavor gently to remove it. There will seldom be a failure, the contraction of the womb, and not time, being the chief director as to the moment when it is to be done. My early teachings were to trust entirely to nature, and let the placenta alone at least for two or three hours. Pursuing this course, while all beforehand passed along pleasantly, I found myself often much embarrassed, and needing to call for aid in delivery of the placenta. In each case the idea of adherent placenta was suggested, but examination satisfied me of no such thing. In most of these cases the placenta lies loosely in utero or in the vagina, and often will be a long while getting away, if not removed. The position is one not favorable to complete expulsion, for there is not, as in the case of the child, a cone with its apex in the rear, and a lengthened body in which pressure upon the back part is of necessity without diminution propelled to the front. With the contraction of the womb first secured, a matter easily determined, there is but little risk in a removal of the placenta, and where there is hemorrhage, and only partial contraction after cold, and other means fail, the removal of the after-birth will often afford relief. Where the placenta is delayed, even though at last delivered, there is more hemorrhage, more after-pains from retained clots, more persistent and debilitating lochial discharge, and recovery more tardy. Introduction of two or three fingers or of the hand, even into a contracting cavity, just emptied of several pounds of bulk, and through an os which has just passed a head, is quite a different matter from their introduction when the child is there, and the cervix is but partially dilated. He who pursues the course indicated, recognizing at the same time the preference of an introduction of the hand to a long retention of the placenta, will find but partial interference necessary, and often none at all, and will have less to do with hour-glass contractions, than half-hour waiting accoucheurs.

REVIVING CHILDREN WHEN RESPIRATION IS ABSENT OR INCOMPLETE.

There are two different indications to be aimed at, either to keep the foetal circulation as long as possible, or to cause respiratory action. If reliance is to be placed upon the foetal organs, the chief indication is to be derived from the beat of the umbilical artery. I once saw an old practitioner, after a child had been born comatose, placenta and all, at once thrust the whole in warm water, with the idea that the placenta had power to sustain life even after its separation. It readily suggests the question, whether or not there is any power of this kind, for we sometimes, even in cases of living children, have reason to believe that there must have been partial or complete separation before birth, and a case reported by Dr. Baldwin to the Boston Surgical Journal, as well as some anomalies noticed in the beat of the artery, seem to point to the same inquiry. Whether it is possible by thus removing the placenta to restart its action, is very questionable. The other point is worthy of more careful thought. Our main reliance, however, in these classes of cases must be to overcome asphyxia by the same general laws as are applicable in other cases; and the plan suggested by Marshall Hall, and still more the Silvester method, as detailed in one of the recent numbers of Braithwaite, is especially applicable. Where the face is congested, the bleeding from the cord sometimes avails, and even cold dashed over the chest, and a smart slap, may cause an inspiration. These cases are often given up too soon. A friend of mine once revived a child who had by the friends been deposited in a utensil for removal; and not unfrequently the flow of life is not so completely stopped in these little ones, but that faithful effort will restore it. I have thus ventured to dwell upon some of these main points as either underrated, or not noticed by many authors, and if in so doing I have added or drawn attention to any point deserving of more careful consideration, each one's guarded experience will prove the proper test of its importance.

[*N. Y. Med. Times.*]

Treatment of Eczema. By Prof. HEBRA.

The Doctor observes, in one of his clinical lectures, that eczema can always be cured. The treatment should be purely local, internal measures being limited to the rare cases in which the eruption has been produced by a previously diseased condition of the system, or when it is combined with some other affection. In the great bulk of cases, internal means, such as mercury, antimony, iodine, purgatives, sarsaparilla, etc., are superfluous and mischievous. Arsenic is the only one of such means which exerts any influence in obstinate cases; ordinarily, however, it is of no use and its employment should be limited to the few cases

which manifest especial obstinacy; the local treatment in these not to be at the same time neglected.

Cold water, in its various modes of application, is of great importance, combined with other means. It aggravates eczema simplex, when arising from excess in secretion, as in the axilla or between the buttocks. Starch, either alone or mixed with oxyde of zinc (three ounces of the latter to one drachm of the former) is an excellent application when the eczema arises from the friction of two cutaneous surfaces, or from excessive secretion. Oxyde of zinc (one drachm to one ounce of lard), sulphate or acetate of zinc, alum (one drachm to one pound of water), red or white precipitate (from six to twelve grains with two drachms of lard), are of good service in acute eczema, or in chronic, when there is but slight infiltration and the disease prevails only over a limited extent. When there is considerable infiltration in chronic eczema, *schmierseife* (an account of which has been given in the July number of this journal, page 451) becomes the most preferable remedy. It is to be rubbed over once or twice a day, or more frequently, according to the degree of infiltration existing. If excoriations have been produced by its use, the surface should be washed and cold applications laid on until the next rubbing. This procedure must be continued as long as the moisture, itching, and infiltration continue, and until the frictions no longer give rise to heat and excoriations of the skin. The soap is then replaced by cold applications and the treatment terminated by the employment of tar.

In many chronic cases, with great infiltration, the soap does not suffice, and we must have recourse to one drachm of caustic potash dissolved in two drachms of water. A pencil of charpie is dipped in this and well rubbed into the diseased parts for some minutes. These are then washed, and cold applications constantly employed. One or two such cauterizations usually suffice, and when more are necessary, they should not be repeated oftener than once a week. It is a very painful procedure.

Tar is in its way just as useful a remedy as the soap, the time for its application being when the moisture and itching have ceased, and exfoliation has commenced, i. e., when eczema squamosum is present. It may be used either alone or mixed with equal parts of cod-liver oil, and should be applied by means of a brush once or twice a day, carefully avoiding washing the parts or allowing water to come into contact with them. As long as any redness or desquamation continues, the tar must be repeated. Sometimes, when the application of the tar has been premature, moisture and itching are observed at certain spots. Then the preliminary treatment has to be resorted to again. Some individuals cannot bear the tar at all, it giving rise to severe inflammatory action. In such cases, an ointment of acetate of lead or oxyde of zinc should be substituted.

Cod-liver oil alone is a valuable external application, and sufficient to cure eczema when this has not lasted very long and the infiltration is not considerable. The employment of the oil alone renders the treatment very tedious, and is objectionable on account of the disagreeable smell and befouling the linen; but it is an excellent adjuvatory to schmierseife and cold applications, as flannels soaked in the oil may be kept bound over the diseased parts during the night. Taken internally, the oil does not exert the slightest influence on eczema.—*Amer. Med. Monthly.*

PART IV.EDITORIAL.

CLOSE OF THE VOLUME.


The present number closes volume the nineteenth of our Journal. We commenced this year under circumstances of unusual prosperity—many new subscribers were added to our list, and our future seemed bright and encouraging beyond any former period. But the calamities which have fallen so heavily on the country at large, have also affected us most seriously. Many of our subscribers have been unceremoniously cut off by the discontinuance of the mails south of us, but even where this is not the case, many more of them have quit their homes and gone into camp, where they will probably remain until the war is over, while those who continue at their posts have their minds so preoccupied by the stirring events which are taking place around them, as to render them almost wholly indifferent to professional reading—such pursuit being far too tame amid the great excitement by which they are surrounded, and in which they so naturally participate. This is one of the necessary evils of the evil times upon which we have fallen, yet it has very materially curtailed our receipts, and otherwise dampened our ardor.

The condition of our State and county—the lack of interest which our readers feel, and which we ourselves feel in matters medical just at this time, has determined us to hold on for the present and watch the progress of events. Our next number may not therefore appear at the usual time. We do not wish to be misunderstood; *we are not under the necessity, nor do we mean to suspend the publication of the St. Louis Medical and Surgical Journal*, but we only mean to remain quiet for a while—it may only be a very short time—until the political cauldron shall have ceased to boil so furiously as at the present, and public affairs in

this region have assumed a definite shape,) when in common with our readers we will doubtless feel our accustomed interest in medical affairs, which is not the case at present. We take no leave, therefore, of our readers, nor of our cotemporaries, for, Providence permitting, they shall both hear from us again.

TO DELINQUENT SUBSCRIBERS.

Subscribers, who are in arrears for the Journal, will confer a very special favor on us, by remitting without delay the amounts severally due. Many of them subscribed with the distinct assurance that they would pay during the year, and we now call on them to redeem this promise. The times, it is true, are hard, and money scarce, but this is no reason why obligations voluntarily entered into should not be complied with, especially when the amount in question is small in the case of each individual, though considerable in the aggregate. We have our own pecuniary liabilities to meet, and in order to do this we must fall back on our friends. It is a bad rule that don't work both ways. So, gentlemen Doctors, pay up like men. Don't put it off until the next week, or the next month, but do so at once, and we promise that we will not call on you again this year, as we neither like to dun nor be dunned.

 The communication of Dr. N. E. JONES of Circleville, Ohio, came to hand too late for insertion in this number.

PHYSICIAN'S VISITING LIST FOR 1862.

Messrs. Lindsay & Blakiston of Philadelphia are already out with the "Physician's Visiting List," for 1862. This is a most useful and convenient book to the practitioner, and we venture to say that those who have used them in former years will regard them as indispensable. For ourselves, we would not be without one of them for five times its value, and advise all those who have not yet given them a trial, by all means to do so.

They are to be had at the book stores of the city, and can conveniently be sent by mail at a slight cost. They are adapted alike to the country as well as to the city physician.

MEDICAL CLASS IN ST. LOUIS THIS WINTER.

We anticipate a very small class in St. Louis this winter. The peculiarly unfortunate situation of our city renders this not only probable, but almost certain. We are under martial law with its accompanying inconveniences. Besides, in the States from which most of our students come, the young men are almost all engaged in the war, particularly is this the case in Missouri. In our opinion, this is just where they ought to be, and we shall not therefore complain of the thinness of our class—we can afford to remain quiet for the present in anticipation of the better time that is coming. By next winter it is to be hoped that the unnatural war which now rages with so much fierceness will be at an end, and when this is the case we have no fears but that our class will at once reach, and even far exceed, its former size. Though medical teaching in St. Louis is at present depressed, our future is full of hope, and we are therefore not at all discouraged—not by any means.

SICK AND WOUNDED SOLDIERS IN ST. LOUIS.

The large number of Federal soldiers in and around St. Louis has rendered an increase of hospital facilities absolutely necessary. The Government authorities have therefore secured and fitted up as hospitals some three or four of the largest buildings to be found in the city, which together with the several hospitals heretofore in operation will furnish accommodations for a large number of disabled soldiers. We have not the means of ascertaining the precise number of inmates in these various establishments, but from the best information that we can gather we are satisfied that we will not be wide of the mark, in stating that there are at this time *two thousand* sick and wounded soldiers in the various hospitals in St. Louis, and the number is daily on the increase. What proportion of these have been wounded in battle we are unable to say, but are of the opinion that it is quite large. The

character of the diseases prevailing are such as ordinarily occur at this season, and are in many instances of a severe type. From the "weekly report of the mortality among the soldiers in the hospitals and camps in the vicinity of St. Louis," from Oct. 26th to November 2d, we learn that thirty-four deaths occurred during that period. From this it will be seen that the post of Army Surgeon in this region is no sinecure.

PROPOSED CORPS OF MEDICAL CADETS.

The following circular from the Surgeon-General U. S. A., will explain itself. We insert it for the benefit of our junior readers—under-graduates in medicine. If they wish to undergo an apprenticeship admirably adapted to familiarize them with the practical duties of their profession, here is an opportunity. In our opinion, such a service would prove of far more value than a course of lectures, and might at this juncture be well substituted for the class room.

"SURGEON-GENERAL'S OFFICE, Aug. 6, 1861.

"The following act of Congress in relation to the Corps of Medical Cadets is published for the information of all concerned:

"SEC. 7. *And be it further enacted*, That there be added to the Medical Staff of the Army a Corps of Medical Cadets, whose duty it shall be to act as dressers in the general hospitals and as ambulance attendants in the field, under the direction and control of the medical officers alone. They shall have the same rank and pay as the military Cadets at West Point. Their number shall be regulated by the exigencies of service, at no time to exceed fifty. It shall be composed of young men of liberal education, students of medicine, between the ages of eighteen and twenty-three, who have been reading medicine for two years and have attended at least one course of lectures in a medical college. They shall enlist for one year, and be subject to the rules and articles of war. On the fifteenth day of the last month of their service, the near approach of their discharge shall be reported to the Surgeon-General, in order, if desired, that they may be relieved by another detail of applicants."

"Application must be made to the Surgeon-General for ad-

mission into the corps, in conformity with the above act, stating the date and place of birth, place of residence, period of medical studies, and enclosing the certificate of the dean of the college (or, when not attainable, other satisfactory evidence of the fact), that the applicant had attended one full course in a medical college. Those applications must also be accompanied with testimonials of the good moral character and sound physical condition of the candidate.

"When an applicant is favorably considered, the candidate will receive a letter authorizing him to appear before an Army Board of Medical Examiners, who will make a special report in such case. From among those approved by the Board, the Surgeon-General will select such a number as the service may require.

"As the services of this class of medical and surgical assistants are at once required, applications (to be successful) should be promptly made to the Surgeon-General, who will direct the candidate to appear before one of the Army Medical Boards now in session in Washington and the City of New York.

"R. S. Wood, Acting Surgical-Gen."

DEATH OF DR. KIRTLEY RYLAND.

Died at Fort Union, New Mexico, September 22d, after a short illness, Dr. Kirtley Ryland, Assistant Surgeon U. S. A., aged 28 years.

We exceedingly regret to be called on to record the death of this young and promising physician. Dr. Ryland was a native of Kentucky, but studied his profession in this city, and in the spring of 1853 graduated in the St. Louis Medical College. Shortly after taking his degree, he appeared before the Army Board, and was admitted as Assistant Surgeon in the U. S. Army, in which capacity he has served ever since—chiefly in frontier duty.

He was possessed of fine talents, well versed in his profession, and wielded the pen of a ready writer, as a number of articles in this and other journals sufficiently attest, and had he lived would undoubtedly have taken a high rank in the army and in the profession.

MEDICAL MISCELLANY.

Subnitrate of Bismuth in Gonorrhœa.—The Cincinnati Lancet quotes the following from the Med. Times & Gazette: "Dr. Mouslon confirms the good account given by Cabv of the efficacy of this treatment. He mixes twenty parts of well washed bismuth in two hundred parts of water, throws some of this into the urethra and has it there retained for ten minutes, a local emollient bath having been employed previously. In only the severest cases is the patient obliged to maintain absolute rest for four or five days, after which he is enabled to return to his ordinary habits and diet. A cure is said to take place more quickly than under the use of any other agent. In chronic gonorrhœa success is less marked, and astringent injections may be afterwards required. In confirmed and obstinate gleet, occurring in a broken constitution, bismuth is of no use."

Self-Glorification.—The Berkshire Med. Jour., in an article felicitating itself on what the editor supposes to be the greatly superior hygienic condition of the Northern army, uses the following language: "There is in all the Northern States, in various degrees, a more enlightened attention to the laws of health, than is possible among the ignorant people that form the rank and file of the rebel army." There is in this extract, as well as in the entire article from which it is taken, a degree of ignorance manifested which is truly pitiable; but this is not the *time* nor the place to discuss the question involved. To assert, however, that the Southern troops are in point of intelligence, or *in any other respect*, inferior to the Northern army, is simply absurd.

Rank of Army Surgeons.—The Chicago Journal says: "The vexed question is apparently settled by official information from the Adjutant General's office. The Regimental Surgeon of the Volunteer force ranks and draws pay as a Major of Cavalry; the Assistant, as Captain of Cavalry. This is better than feared; but now let the Government vouchsafe brevets, promotion, and the usual honorary mention of those who distinguish themselves in this service, and the Surgeons of the Grand Army will have little of which to complain. The importance of the department demands at least this."

Ingrowing Nail.—The Lancet says: "M. Legrand puts a thick layer of dried alum on the painful part, and secures it with a narrow muslin bandage. This is left on for three days, and when removed carries with it a great portion of the fungating soft parts. A portion of the nail is then easily cut away, and the same dressing used till all pain and uneasiness have ceased."

Tonic for the Hair.—The Druggist has the following: "When the hair is falling off and becoming thin from the too frequent use of castor, mecassar oils, &c., or when premature baldness arises from illness, the arnica hair wash will be found of great service in arresting the mischief. It is thus prepared: Take elder water, half a pint; sherry wine, half a pint; tincture of arnica, half an ounce; alcoholic ammonia, one drachm; if this last named ingredient is old, and has lost its strength, then two drachms instead of one may be employed. The whole of these are to be mixed in a lotion bottle, and applied to the head every night with a sponge. Wash the head with warm water twice a week. Soft brushes only must be used during the growth of the young hair."

A Good Suggestion to Soldiers.—A writer in the N. Y. Med. Times suggests to soldiers the propriety of evacuating the bladder prior to going into an engagement, as a means of preventing that viscus being wounded. This is a good idea and would unquestionably tend in many instances to protect the bladder from being wounded, as when empty it would occupy a smaller space, and be much less liable to be injured; and in addition to this would prevent the otherwise fatal consequences of urinary extravasation. Officers and soldiers would do well, therefore, to act on this suggestion.

Alum and Rhatany in Saccharine Diabetes.—The Gazette de Paris says: "M. Demeaux, in a communication to the Academy of Sciences, intended as preliminary to a more detailed statement, declares that he has treated diabetes very successfully by means of calcined alum and extract of rhatany given in equal parts."

Origin of the word Quarantine.—Our Boston cotemporary quotes the following from Meryon's History of Medicine: "During the prevalence of the plague in Europe in the fifteenth century, the sick or suspected were sent to isolated houses or lazarettos. The term of forty days was fixed on as a probationary sojourn in the lazaretto, probably from the doctrine of critical days, which determined the fortieth as the last of all ardent diseases; hence the term quarantine."

Tin Fracture Splints.—Prof. Cooper, in the San Francisco Medical Press says: "For a long time, we have been in the habit of using tin instead of wood for fracture splints. This material is so far superior to all others used for the purpose, that we are greatly surprised that manufacturers of patented splints have never adopted it instead of wood. It is lighter, stronger, far cheaper, and can be moulded into any desirable shape by the surgeon. Thus, as often the case in compound fractures, it being desirable to have some particular part exposed, the surgeon may go to any tinner, and procure, at very trifling expense, the splints, with the necessary openings, which cannot be the case with the use of wood. Any tinman can easily make the splints, but few workmen can make them properly shaped of wood. We would particularly commend them to young practitioners, who may not be able to equip themselves with the more costly appliances, in the commencement of their practical careers."

The Sylvester Method of Restoring Animation.—The Boston Med. & Surg. Jour. says: "Our British brethren are gradually superseding the ready method of Marshall Hall for restoring suspended animation, by the still simpler and readier one of Dr. Sylvester, which is thus given in Heath's Minor Surgery: Lay the patient on his back, and having pulled the tongue forward, draw the arms slowly up over the head, by which means the ribs are elevated by the pectoral muscles, and inspiration is produced; the arms are then to be brought down to the side of the chest, which they are to compress in a slight degree. These movements are to be repeated as slowly as in the other method (the Marshall Hall method), and it is said that they give a more complete charge of air to the lungs."

Mal-practice and Deception of a Quack.—The American Medical Times of New York, says: "A case was recently tried in an interior town, in which the defendant, a quack, was charged with mal-practice, in the treatment of disease of the uterus. It was alleged that he was accustomed to diagnose a tumor of the uterus in every case, and that on the first examination he would contrive to introduce, unobserved, a piece of raw meat. He then began to make local applications, and in due time, after much offensive discharge, and no little discomfort, the offending substance would escape, to the great relief of the sufferer. In this case the patient was struck with the resemblance of the tumor to a piece of meat, and took it to a physician, who submitted it to a microscopical examination, when its nature was discovered. The result of the trial was a verdict of \$1,000 against the defendant."

Oil of Turpentine as an Anæsthetic.—The Chicago Medical Journal says: Among the manifold uses to which this article has been put, Mr. John Wilmshurst in a communication to the London Lancet, March, 1861, introduces anæsthesia. He avers he has tried it, administered sprinkled upon a handkerchief, by inhalation, in several cases of severe neuralgia and minor surgical operations, and that it seems to allay pain, nervous irritation and spasm without deranging the action of the heart, and produces a calm anæsthetic sleep. *Credat Judæus Appella.*

A Medical Sharpshooter.—The Lancet says that Dr. Burke Ryan, the surgeon to a rifle regiment, has greatly distinguished himself in rifle shooting, and has been awarded some prizes. The habitual steadiness of practicing surgeons, with their accustomed consentaneous action of eye and hand, should make them good marksmen.

The Reporter remarks, that military surgeons, although technically non-combatants, are sometimes obliged to act on the defensive, and a little practice with weapons would be advantageous to them.

Treatment of Diabetes.—Our Boston cotemporary says: "M. Demeaux, in a memoir presented by M. Velpeau to the French Academy in his name, announces that for many years he has treated diabetes mellitus by the extract of rhatany and burnt alum in equal quantities. Two cases of complete cure by this treatment are related in this memoir, and the author promises hereafter to treat the subject with all the details that its importance demands."

Danger of Hooped Skirts.—The Med. & Surg. Reporter says: "The modern hooped-skirt has cost the lives of many ladies—singularly enough, almost in every case in the higher walks of life—both in this country and abroad. Among these we may mention Mrs. Longfellow, and a young lady of good family in Boston; Clara Webster on the stage, Miss Plunkett, and the ladies Laura and Clara Bridgman, in England."

Mr. Russell's Tribute to the Surgeons of the Federal Army.—The correspondent of the London Times says of the panic and retreat at Bull Run, "that one class of officers in the Federal army did their duty nobly—the Surgeons remained on the field when all others were retiring or had left." We are happy to record the fact that amid the disgraceful panic which seized the Federal army on the memorable occasion above alluded to, at least one class of officers did their whole duty—hence it is that so many of them were taken prisoners. This is creditable to them and to the medical profession.

Itch-Ointments.—It is said that all ointments used for the cure of psora, owe their curative properties entirely to the lard they contain. If this be so the sulphur, mercury, etc., so generally combined with the lard—and which is always offensive—may be dispensed with.

Obstruction of the Lachrymal Duct.—The Cleveland Med. Gaz. quotes the following from the Amer. Medical Times: Dr. J. E. Macdonald describes a new method of operation. He says: "I have done away entirely with the director, and only employ a blunt-pointed, narrow, and slightly-curved bistoury, the blade of which is only three-quarters of an inch long, the heel about three-sixteenths of an inch broad, and which tapers to a fine blunted point, a very little probe-shaped. It is sharp on its concave edge, cutting to the point, which is very narrow; and to provide for its strength, the back is somewhat stout, and delicately clubbed at its extremity.

Qualification of Volunteer Army Surgeons.—The Chicago Med. Examiner says: "The Surgeon-General authorizes the several medical directors of the army, when they have reason to doubt the professional competency of any of the medical officers under their charge, to organize a board of not less than three medical officers, which shall examine said officers of questioned professional capacity, and decide whether they are competent to the performance of their duties. If the decision of the board is adverse, they will cease to be in the military service of the United States."

An Improvement in Nitrate of Silver for external use.—The Chicago Med. Examiner says: "Tough Lunar Caustic Points are prepared by the English druggists, by the addition of two per cent. of some adhesive material, which, while not interfering either with the efficacy of the caustic, nor its solubility, renders the nitrate perfectly tough, and as readily cut and pointed as an ordinary slate pencil. They are cast in small conical points, an inch long, and of the diameter of an ordinary lead pencil.

Medical Hospital at Richmond, Va.—The Med. & Surg. Reporter says: This hospital is just now completed at an expense of \$20,000, and is open for the reception of patients. It is provided with every convenience necessary for the comfort and successful treatment of the sick, who are all under the immediate care of the Professors of the Medical College. Attending Surgeons, Drs. Gibson, Peticolas, and Wellford. Attending Physicians, Drs. Tucker, Conway, and McCaw. Resident Physician, Dr. Isaiah H. White.

Medical Department of Pennsylvania College, Philadelphia.—All the members of the Faculty of this department of Pennsylvania College have resigned their chairs. The reason assigned is a disagreement between the Faculty and the Board of Trustees of the Department (controlling the College Building), in regard to the expenses of the institution, in view of the expected reduction of the medical classes during the war. So says the Medical News.

Dupuytren on Spurious Pregnancy.—The Berkshire Medical Journal copies the following from the Med. News & Lib.: “Prof. Simpson, in lecturing on spurious pregnancy, tells the following good story of Dupuytren. ‘Such cases are, happily, extremely rare; but you do meet with them occasionally, and not in patients within the walls of a lunatic asylum only. It is told that a lady once came to Dupuytren, to ask what was to be done in her case, as she had now been in a family way for fourteen years—and the great Parisian surgeon gave it as his opinion, that as the boy must be tolerably well grown by that time, the best thing the lady could do was to swallow a tutor immediately, that his education might not be neglected.’”

Intermarriage of Blood Relations.—Dr. Brewster, Superintendent of Monson State Alms House, in a letter to the Berkshire Medical Journal, states that *four idiotic children*, one daughter and three sons were admitted to that institution, all the fruit of a marriage of *own cousins*, for four consecutive births. This is a striking illustration of the evil effects of such incestuous marriages, which, for the welfare of society, should be prohibited by law and discountenanced by all good citizens.

Painless Drawing of Teeth.—The Druggists’ Circular, to effect this purpose, says: Rub the gums with the following solution by means of a bit of lint or cotton steeped in it:—R. Chloroform $\frac{3}{4}$ iss., Tinct. Aconite, Spts. Vini aa $\frac{3}{4}$ j, Morph. Sulph. gr. viij. M.

Compliment to the Medical Profession of the United States.—The Chairman of the great Sanitary Commission, advisory to the Medical Bureau of the Grand Army, is a Unitarian preaches, distinguished especially for his advocacy of theatres and dances at not necessarily mortal sins. It is understood that Phineas T. Barnum, Esq., and Mons. Blondin are to be honorary members, in consideration of the eminence they have respectively attained in their respective avocations. So says our cotemporary, the Chicago Medical Journal.

Ergot of Wheat.—The Med. & Surg. Reporter says: "The ergot of wheat is substituted for that of rye, by some of the practitioners at Claremont Ferrand, in France, with great advantage. It is larger, rounder, and harder than the rye, and the odor is less disagreeable. It attracts moisture less, and retains its activity longer after being powdered."

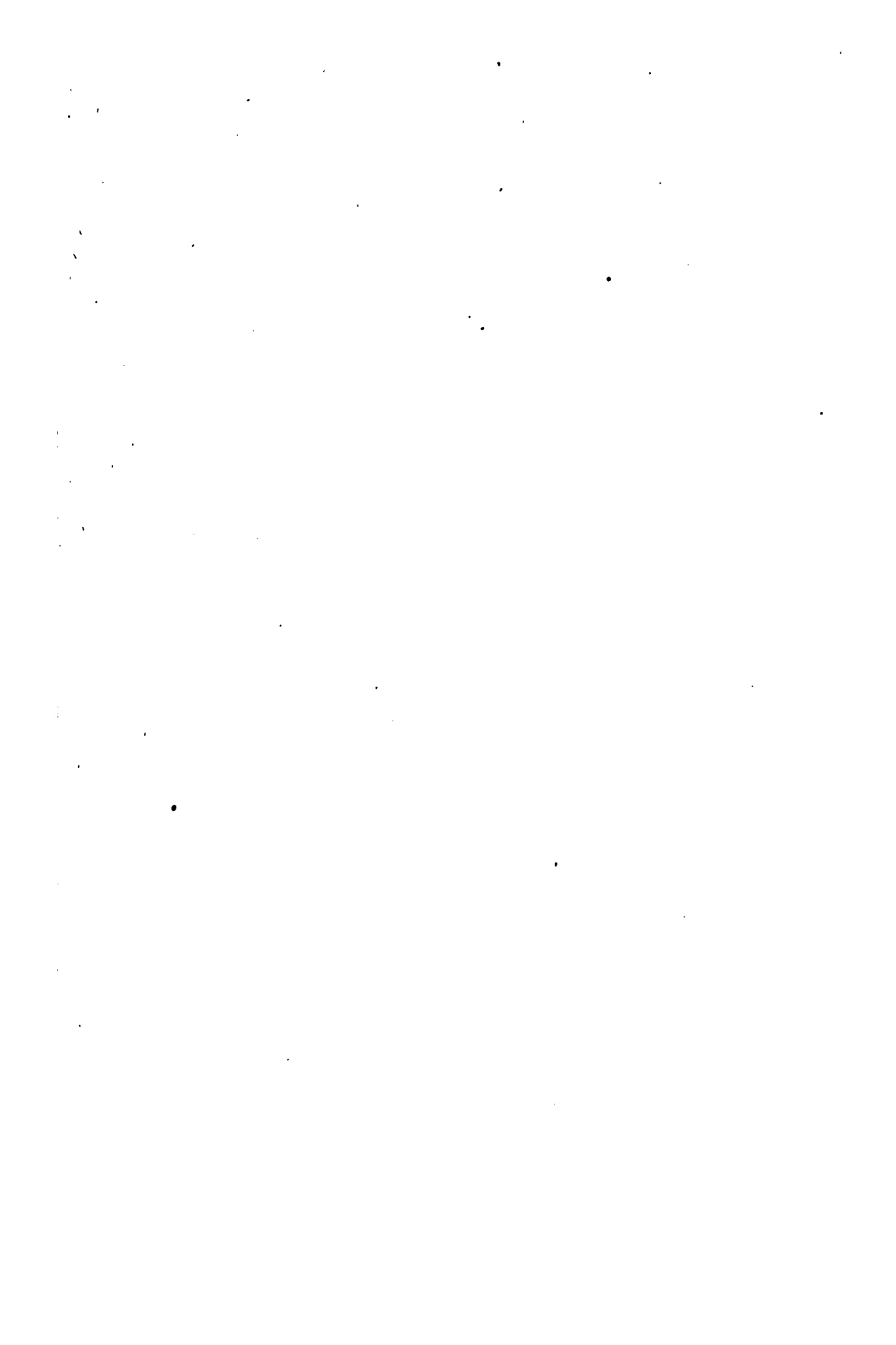
Medical Appointment.—Dr. S. G. Armor of Dayton, Ohio, has been appointed, and has signified his acceptance of the chair of Institutes of Medicine and Materia Medica in the Medical Department of the University of Michigan.

Tin Fracture Splints.—Our Cincinnati cotemporary says: Dr. E. S. Cooper of San Francisco, recommends *tin fracture splints*, instead of wood or other material. He thinks it the most convenient and easy of preparation upon an emergency; any tinner being able at short notice to furnish splints of any particular desired pattern, and the economy in expense being also quite an important item.

Citrine Ointment made with Bear's Oil.—Mr. Wm. Pr. Creecy of Vicksburg, Miss., sent a specimen of this preparation to the editor of the Amer. Jour. of Pharmacy, who publishes the recipe: Mercury, one ounce; nitric acid, fourteen fluid drachms; bears' oil, thirteen fluid ounces. Heat the oil in a porcelain capsule to 200° Fah., and add the solution of nitrate of mercury gradually, stirring continuously till effervescence ceases, and frequently till cool, with a glass or porcelain spatula.

Iodine in Tubercular Meningitis.—A Foreign Journal says: "Dr. Bourrousse, at the conclusion of a long memoir laid before the Académie de Médecine, states: 1. All, or almost all, cases of tubercular meningitis which have resisted hitherto all therapeutical procedures may now be deemed curable; 2. One or two hundred thousand infants will owe their lives each year to the employment of iodide of potassium in acute hydrocephalus; 3. This meningeal affection is the only tubercular disease which has been rendered curable, and this success will probably lead to amendment in the mode of treating other forms of tuberculization."

Antidote to the Poison of Hydrophobia.—The Druggists' Circular says: Dr. Rodet, late Chief Surgeon of the Antiquaille, at Lyons, France, recommends the solution of the perchloride of iron, as a specific for the virus of hydrophobia, if applied within two hours from the infliction of the bite. It destroys the virus, as he has determined from actual experiment.



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